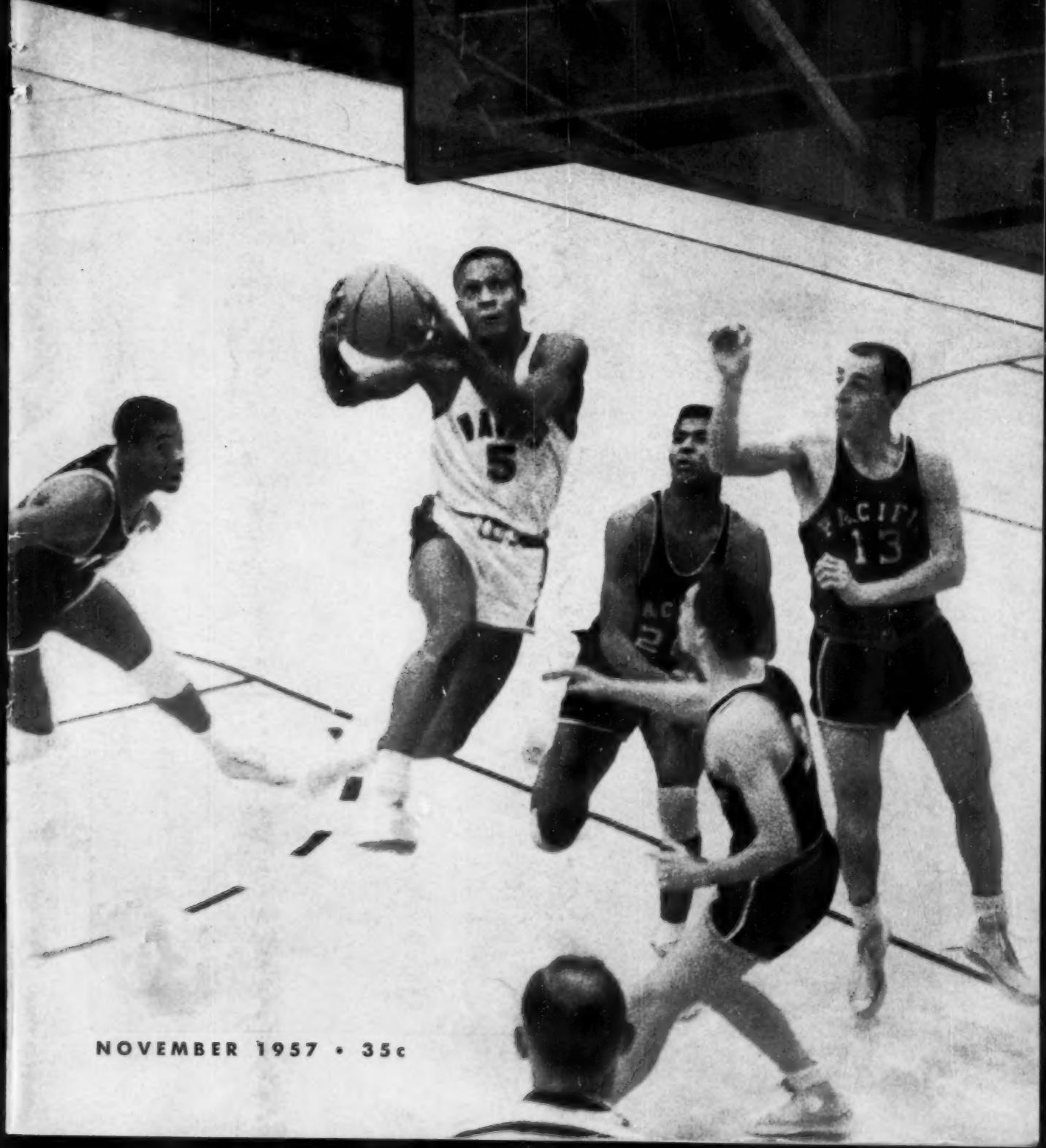


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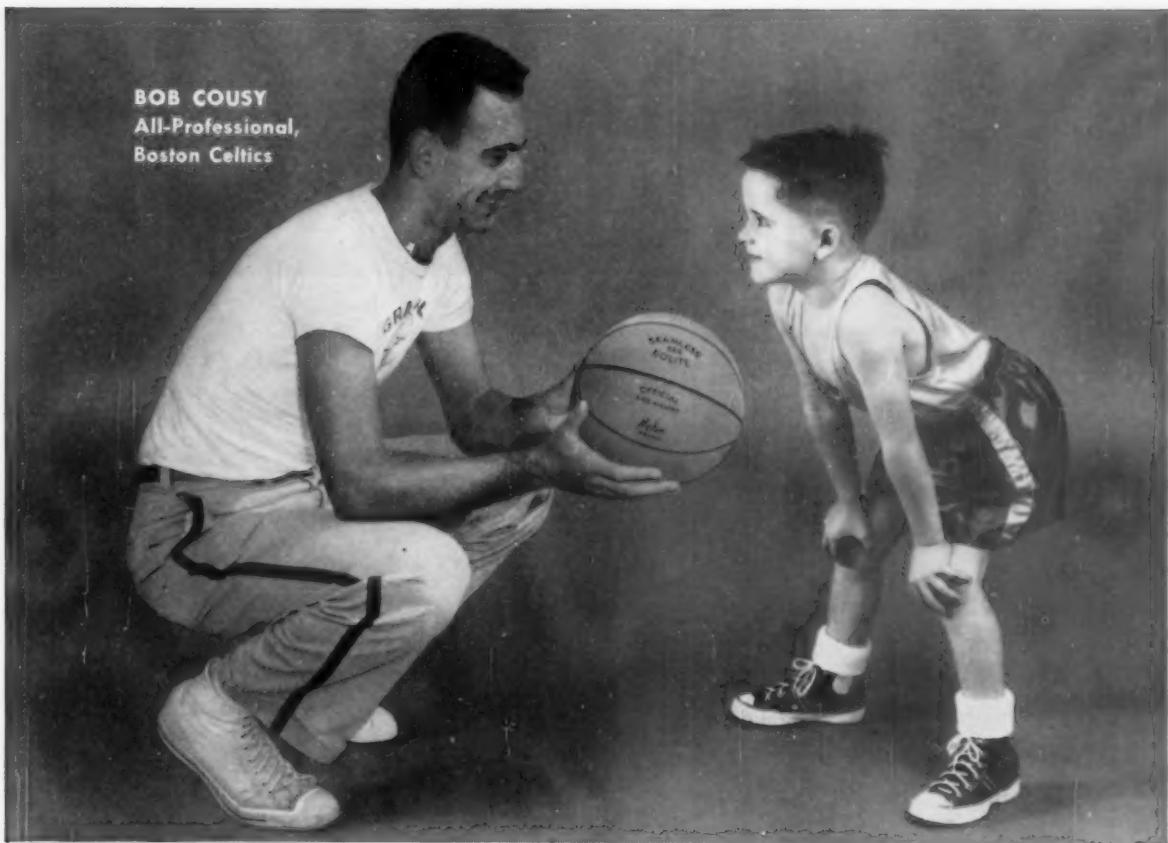
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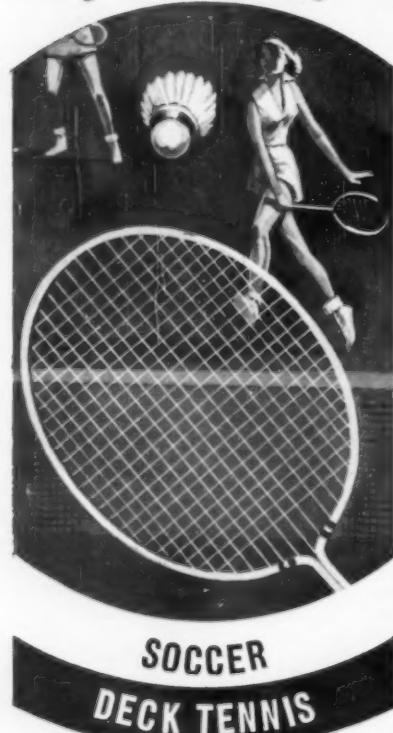
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# SCHOLASTIC COACH

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VOLUME 27 • NUMBER 3 • NOVEMBER 1957

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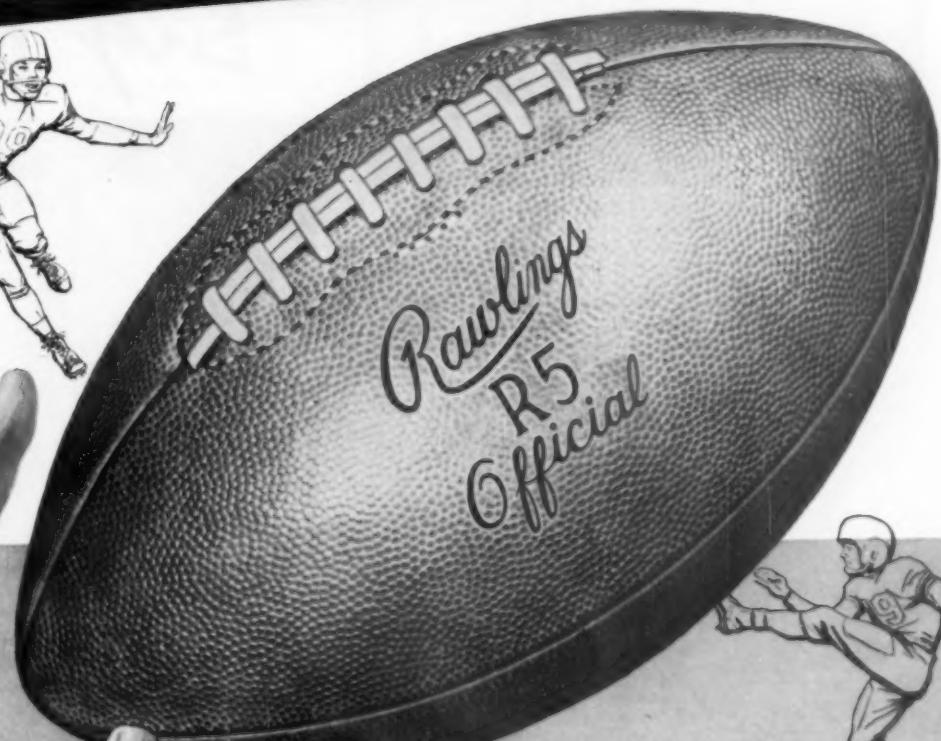
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# Up among the clouds so high

**T**HIS man Shane MacCarthy has always been a puzzlement to us. As the President's head cheerleader on Youth Fitness, he has displayed a laudable diligence but a somewhat disconcerting naivete.

When he expounds bicycle paths, play streets, and night-lighted parking areas as a means of hardening America, you can't help wondering if he's an Alice lost in Wonderland, a Don Quixote tilting with invisible windmills, or a later-day St. Patrick chasing the physical unfitness snakes out of Our-land.

However, reading about Mr. MacCarthy and confronting him *vis a vis* are entirely different things. We recently had the good fortune to meet him, and the fellow completely captivated us with his charm, warmth, and wondrous articulateness. No Senator Claghorn he. Far from it. He displayed a fine mind, a fine wit, and an impressive arsenal of facts and figures.

He knew all about *Scholastic Coach* and was eagerly looking forward to an exchange of viewpoints. We immediately informed him that we set little store by the controversial Kraus-Prudden report, that we didn't believe a physical fitness emergency existed, and that we thought America's youth was in the best physical shape of its life. We unloaded all our statistical weapons (as published in this column last March), then set back waiting for a medal or a fight.

**N**EITHER was forthcoming. The gentleman from Washington remained impressively calm. Yes, he was aware of our argument. But the fact that America has far more and far better athletes than ever before isn't exactly indicative of the nation's health.

Did we know that the athletes covered in our survey represented only about 10% of the school population? How about the other 90%? What was being done for them?

The 10%-90% breakdown was most interesting. But we thought it begged the question. We hadn't said that *every* youngster is participating in a fitness program or that the health of our youth leaves nothing to be desired.

Our contention simply was that America's youth is NOT deteriorating or is inferior to any other country's youth—that if this were true, we certainly couldn't be achieving such fabulous success in so many lines of athletic endeavor.

**M**MR. MACCARTHY attempted to reconcile our viewpoints: "Let's put it this way: There's no physical fitness emergency *now*, but it's conceivable that under our present way of life there might be one in the future. And we can safeguard against that *now*."

Unconvinced but reasonable, we said we'd buy that—we'd certainly go along with any program designed to reach the millions currently untapped by varsity, intramural, or physical ed programs. Then we popped the 64-million dollar question:

"Mr. MacCarthy, how much is the government prepared to spend for such a program?"

The President's aide shook his head. "We don't need any vast sums of money to do the job. We can do it with imagination, with a great united effort, by inspiring our leaders to make greater and better use of the existing facilities and personnel."

That stunned us. "Mr. MacCarthy," we exclaimed, "you know that fewer than 50% of our high school students are exposed to physical ed programs; more than 90% of our elementary schools have no gyms; only 1,200 of our 17,000 communities have full-time recreation leadership; and that even the schools with facilities have neither the equipment, the space, the funds, nor the personnel to offer a daily

physical education period. That's been a problem for 50 years.

"Now, how can you expand and intensify our physical fitness program without providing the millions, maybe billions, of dollars necessary to do it?"

Mr. MacCarthy stuck to his "inspirational" guns. He mentioned a few communities that have done it, and just when the conversation began to heat up he had to dash for a plane.

**W**E LEFT with a deep personal liking and respect for the fellow, but dubious about his approach to the job. Events a week later multiplied our doubts. We refer to the two-day conference of the President's Council on Youth Fitness and the President's Citizens Advisory Committee at West Point, N. Y.

The Citizens Advisory Committee, just in case this organization isn't familiar to you, is one of the most magnificent catch-alls in Washington annals. It consists of 120 leaders in every walk of life, including such marvelous physical fitness experts as Gary Cooper, Bing Crosby, Arthur Godfrey, George Meany, and Mrs. Aida Breckenridge (whoever she is). Hopelessly bulky and heterogeneous, it's the kind of committee that could advise on stocks, bonds, ulcers, and television programming just as easily as physical fitness.

For one brief moment at the opening of the Conference, our heart soared hopefully. That was when Vice-President Richard Nixon warned the Conference not to end up with "a fine document" that would only serve "to gather dust in the Library of Congress."

But this plea for practicality marked the end of our great expectations. The boys then broke up into a series of group discussions. And whenever they came up for air, there were Mr. Nixon and Mr. Mac-

(Concluded on page 62)

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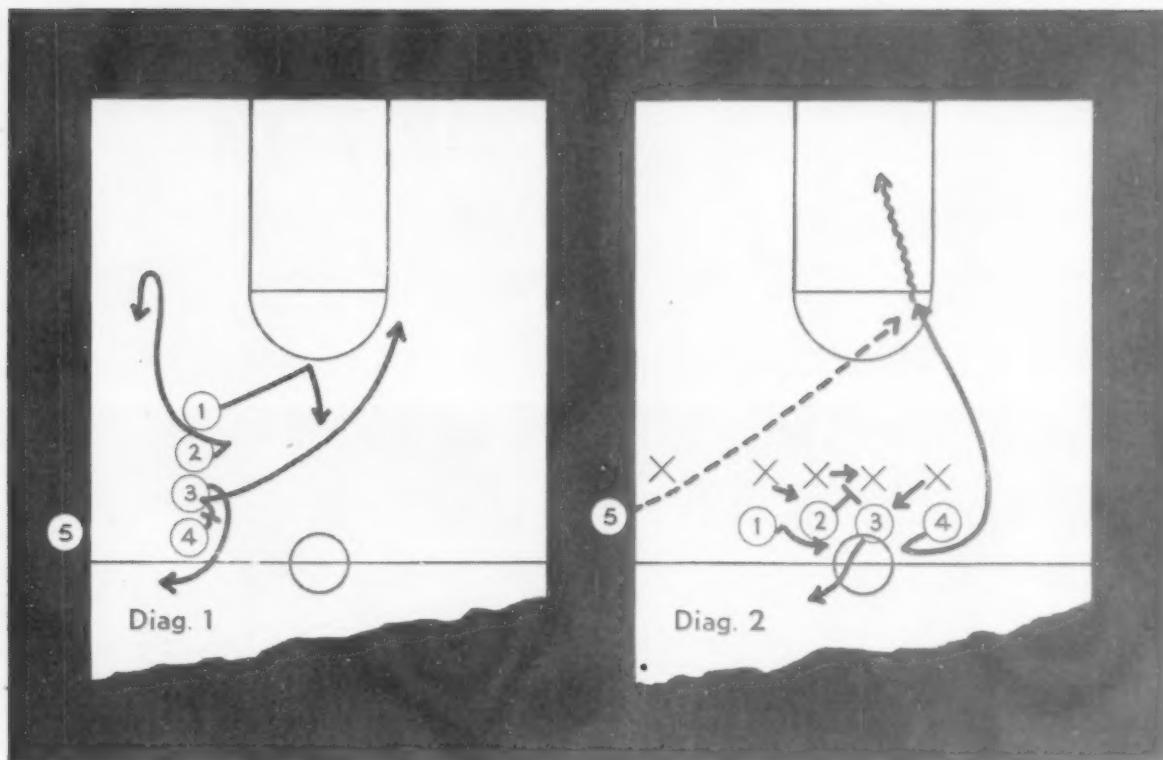
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**I**T WAS in the closing moments of the CCNY-Bradley national championship game. Bradley, trailing by a point and fighting for possession, accidentally batted the ball out of bounds near midcourt.

The official handed the ball to a City College player out of bounds, while the other four offensive men lined up side by side facing their opponents, as shown in **Diag. 1**.

At a signal, 1 feinted one step to his left and cut to the right in a wide flanking movement. 2 moved toward the opening between X-2 and X-3, carefully avoiding any contact with a defensive player. 3 cut back for safety and to assure an in-bounds receiver.

No. 4 feinted to his right and then took several steps to his left. As his man moved left, he became entangled with his tightly guarding teammates. 4 then quickly changed direction, cutting downcourt for a long pass from the outside man. He then went in for the easy layup that clinched the championship.

Among the organizational problems confronting a coach is the question of out-of-bounds plays. Should he take the time to teach a special play for a situation which may or may not arise in any given game? Or should he teach a generalized pattern with a number of options from which a scoring opportunity may or may not materialize?

It's difficult to generalize for all coaches and all situations. But several factors must be acknowledged and utilized in devising a workable coaching program. Statistics reveal that teams receive the ball outside their offensive court approximately 10 to 15 times. Since the average college team has possession 70 to 80 times for approximately that number of shots, it's

## Outside Ball

## Scoring Plays

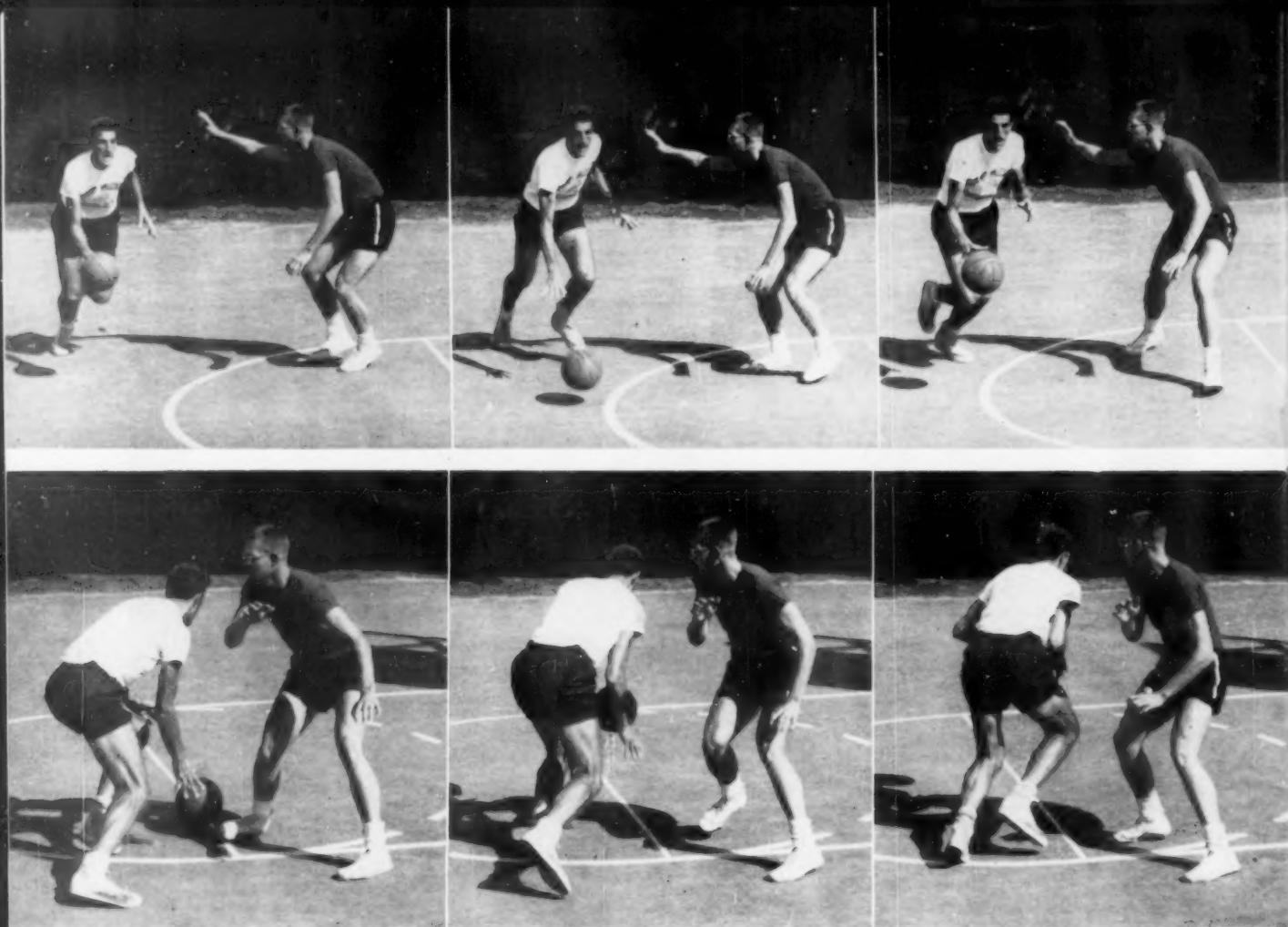
apparent that out-of-bounds situations may comprise about a fifth of the total offense. It thus follows that these situations should be definitely included in the coaching program.

The coach of a young, green team would probably be wise to teach generalized patterns which emphasize possession, whether or not a scoring opportunity arises. On the other hand, the coach of a veteran team, well-versed in a style of play, can put in special out-of-bounds plays both from the side and underneath.

Special plays or new twists to old plays also come in handy late in the season when the traditional games are coming up. By the end of the season, almost every team is pretty well-scouted and the opponents know pretty well what to expect. This is a good time to add something new, to put a joker up your sleeve that may unexpectedly give you the winning hand.

Following are some out-of-bounds plays that have  
(Continued on page 42)

By BOBBY SAND, City College of New York



# SHOOTING TOUCH

By DOLPH SCHAYES, All-Pro Forward, Syracuse Nats

**G**OOD shooting is the cornerstone of all offense. You need that good eye not only to score but to keep the defense honest. If you can't shoot, a smart defense will collapse on you; and that will spell m-u-r-d-e-r to all your beautiful weaves, screens, and cuts.

All this, of course, is quite academic. How many kids can be classi-

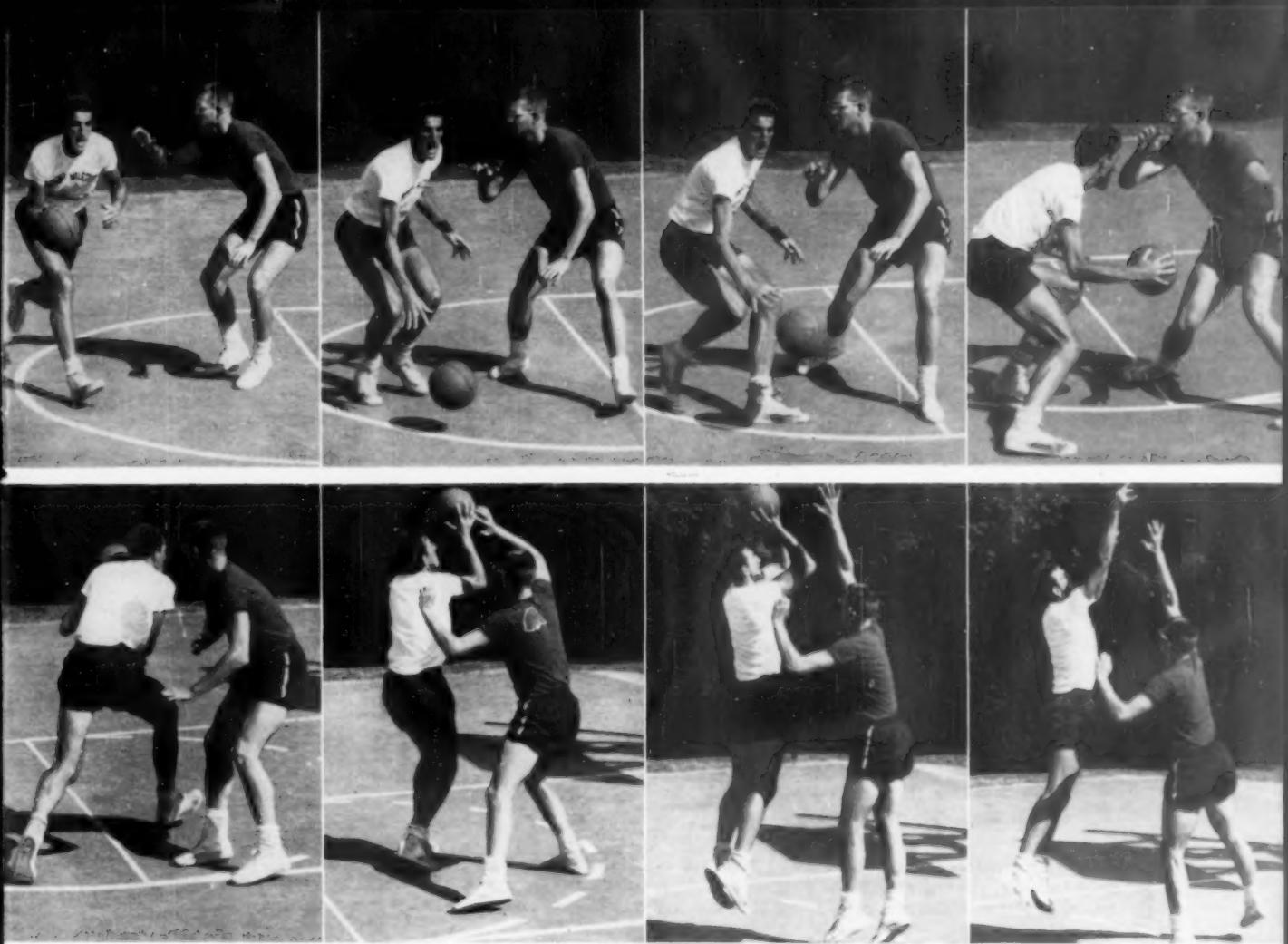
fied as poor shooters these days? Not very many. From the moment Daddy slips 'em a basketball for Christmas, they're out in the back yard or playground popping away like crazy—hooking, jumping, one-hand setting on the run, etc.

No doubt about it, the kids today are infinitely better shooters than the youngsters of a couple of decades ago. But that doesn't mean

they're *finished* shooters. Far from it. Nearly every shooter of school or college age possesses a number of faults that prevent him from realizing on his potential, and even many of the better shooters are flawed in some respect. I believe that *everyone* can benefit from some meticulous instruction on the "little things."

The two primary considerations in shooting are a good triple-threat position and a perfect master line. By "triple-threat position," I mean the starting stance. Soon as the player receives the ball and there's any possibility of a shot, he should immediately finger it into the correct position (to be described) and hold it in a manner which presents a triple-threat to his guard. This position should enable him to shoot, pass, or dribble instantaneously—without pausing to finger the ball or shift his stance.

This isn't always necessary, of course. Where a player is weaving in a pattern or obviously can't do anything with the ball, there's no need to shift the ball in his fingers or assume any particular stance. But



whenever he has time to size up the defense and make an individual move, he should automatically finger the ball into position.

In working with the kids at my basketball camp in Plattsburgh, N.Y., last summer, I detected two conspicuous shooting faults. The kids would get the ball and start shooting (a) direct from the hand position in which the pass was received, and (b) before training their eyes on the target.

Coaches should watch carefully for this, and keep harping on the necessity to finger the ball into position and train the eyes on the basket before shooting. In a very short time, this will become a habit with the boys.

The "master line" theory was propounded to me by Bobby Sand, the astute ex-assistant coach of City College (N.Y.). Bobby compared shooting to driving a golf ball. As you swing the club, there's only one true line through which the clubhead must travel to assure a straight hit. If the clubhead deviates by even the slightest fraction, a slice or a hook will result.

**CHANGE-OF-DIRECTION DRIBBLE AND JUMP SHOT:** The author offers a superb demonstration of the shot that made Jim Pollard famous and which Schayes added to his repertoire the past summer. The play may be worked going either left or right. In this particular sequence, Schayes starts dribbling rapidly to his right. His guard sticks with him, using a nice boxer's shuffle. As Schayes reaches the far side of the circle, he suddenly steps on the brake and changes direction. The pivot is made off the left foot. As the ball comes up to the hand (last picture in top row), Schayes has shifted his weight to the left and is ready to shove off in that direction. He takes a short, swift dribble to the left, catches the ball and simultaneously takes a deep, diagonal step with the right foot. He then gathers himself quickly and puts up a nice jumper from about 12 feet out—effective shooting range.

The same principle applies to basketball. The ball must take a true path in its flight toward the hoop. The master line is set by the position of the feet, body, head and eyes, extended fingers and arms moving in the follow-through, and the center of the front rim of the basket.

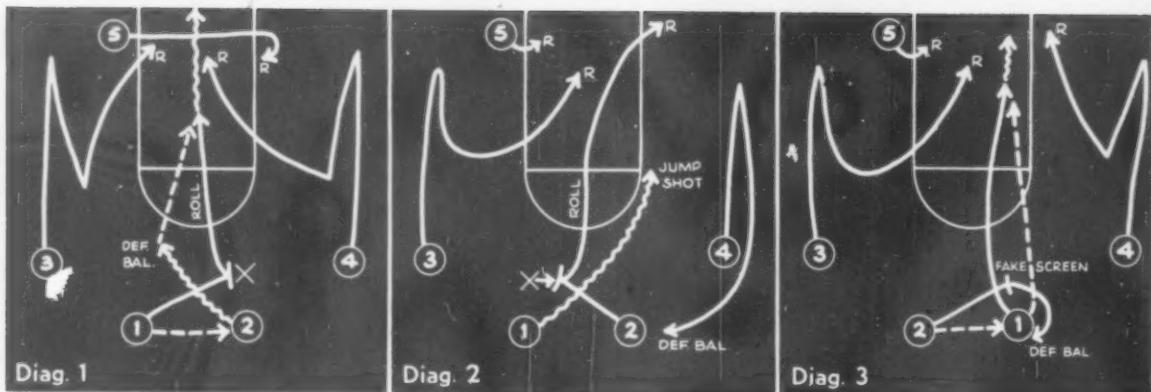
If the fingers and arms fail to follow through along the true path—the path fixed by the relationship of the body and eyes to the front rim—the ball must go to the left or the right.

Perfect control is essential in every type of shot, and control is

predicated on the proper grip and stance. As the ball is received, it is quickly fingered into a position with the seams running horizontally. The fingers are spread comfortably on either side of the ball, with the thumbs pointing upward.

The width of the finger spread and the thumb position may vary slightly with the individual. Comfort and ease of delivery are vital here, and boys may have to experiment a bit to get the grip that best assures this.

The ball is controlled by the fin-  
(Continued on page 60)



Diag. 1

Diag. 2

Diag. 3

## A Screening-Continuity Pattern Against the Man-to-Man

THOUGH basketball coaches hold widely divergent views on attacking patterns, most will agree that a well-conceived offensive pattern offers many advantages.

Being a firm believer in a screening-continuity type of pattern against the man-to-man defense, especially on the high school level, I'd like to explain several basic phases of a particular continuity known as the "10 Series."

The offensive setup, as indicated in the diagrams, is a modified 2-3 with a single pivot. The pivot (5) sets up deep at the edge of the lane on the end line; the forwards (3 and 4) set up three to four feet ahead of the free-throw circle and four to five feet from the sidelines; and the guards (1 and 2) work out in front, setting up 10 to 12 feet apart, though their positions are very flexible and adjust according to the defensive pressures.

### "B Play" Down the Middle:

The first phase of the "10 Series" is the B Play Down the Middle, initiated by the guards. This guard maneuver is started in one of three ways, as shown in Diags. 1-3. The inside screen with the subsequent roll—permitting the dribbler to drive for the lay-up or jump shot

as a result of his defensive man being screened—is the important scoring threat here, no matter how the play is initiated.

The roll by the screener works effectively when the defense is forced to switch and makes a mistake in defending the roll-away man. Many times the screen for the ball-handling guard will free him for a scoring opportunity (Diag. 4). The center, 5, always moves to the side of the lane opposite the ball in order to clear out for the roll-away play and be in a position to rebound the weak side (Diag. 1).

If 2 doesn't elect to shoot or pass to the roll-away guard, 1, 5 breaks out to receive the pass from 2 as soon as 2 breaks his dribble. 2 fakes first if his man is on him tight, and then passes into the post man, 5. 2 takes a fake step to his right, then cuts by the post very close for the return pass (Diag. 5). If he doesn't get the return pass, he continues on to set up on the lane in a favorable rebounding position.

Forward 3, who's been busy jockeying his defensive man up and down the sideline to keep his attention, fakes toward the base line and cuts over the top of the post, 5, as the second cutter in splitting the post (Diag. 6). He may receive the pass for a shot over the screen cre-

ated by the post man, or he may be able to drive in closer for a jump shot.

In case 3 doesn't get the ball from 5 on the play, he continues on and sets up as a rebounder on the lane (Diag. 7). Forward 4, who's been jockeying his defensive opponent up and down the sideline, moves out for the possible set shot at the head of the circle if he receives the pass from 5.

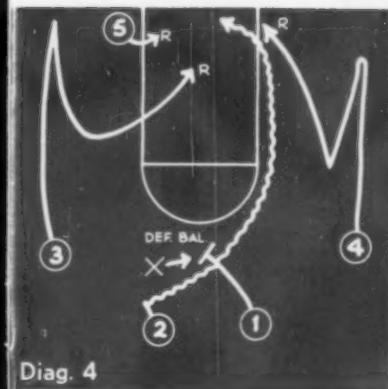
After 1 rolls from his screening position, and doesn't receive the pass from 2 on the roll-away play, he takes a favorable rebounding position on the same side of the lane that 5 had occupied before he broke out to meet the ball (Diag. 8). The pivot man, 5, after receiving the ball from the guard, may elect to whip his defensive opponent any time he feels he can wheel and drive or get the good jump shot.

In case no good shot develops in this continuity, the guards break out to receive the ball from 4, balance up again, and go into another phase of the "10 Series." In the B Play just described, any of the five players might have a good scoring opportunity.

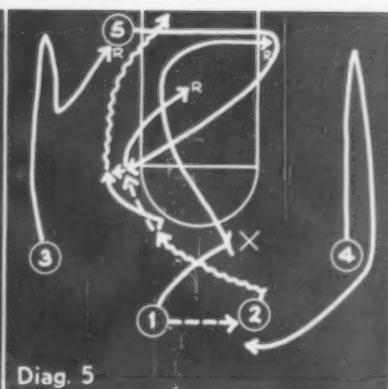
**"B Play" Option** (When the pivot man is covered and cannot get the ball):

If guard 2 cannot pass the ball safely into the pivot, he immediately goes into the "option." 2 may pass to either forward to start the

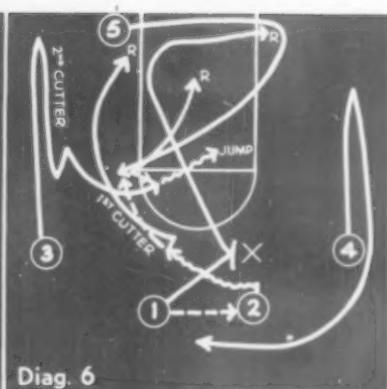
By GEORGE LATHAM, Waukegan (Ill.) Township High School



Diag. 4



Diag. 5



Diag. 6

## Defense

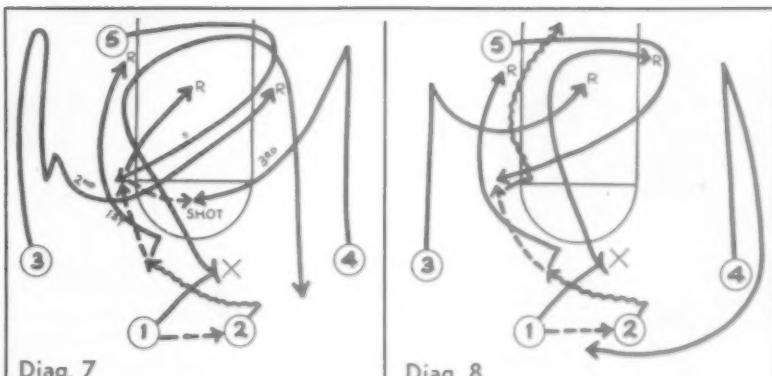
option, but should choose the short pass; in this case (Diag. 9), he would pass to 3. The latter will fake a pass to 1, who's moving from his position under the basket to the corner on the side of the ball, and try to drive by his defensive man as the middle is being cleared. 3 may be able to go all the way in.

Should 3 not be able to drive, he'll pass to 1 in the corner and then cut for the basket, hoping to get free on the pass-and-cut play to get a return pass from 1 (Diag. 10). If 3 doesn't get a return pass, he cuts on through and sets up as a rebounder on the opposite side.

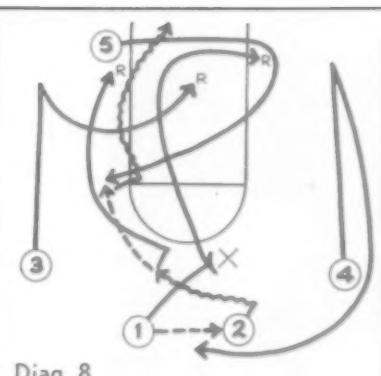
As 4 saw the option play start, he moved up court toward the 10-second line about three steps beyond the head of the free-throw circle to pull his defensive man out of the middle (Diag. 11). When 5 did not receive the pass from 2, he immediately moved opposite the option pass by 2 to set a screen on 4's defensive man. Likewise, 2, after passing safely to 3, moves away from the ball to screen for 4, who breaks over the top of the double screen and drives down the middle just behind 3's cut. 1, with the ball, could pass to cutter 4.

If 4 doesn't get the ball, he runs on through as indicated, since he must clear out for the next cutter, 5, who should get a good 15-foot jump shot (Diag. 12).

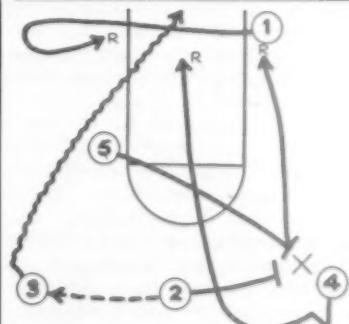
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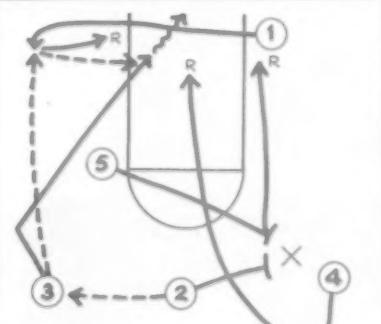
Diag. 7



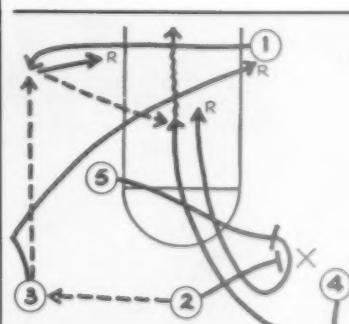
Diag. 8



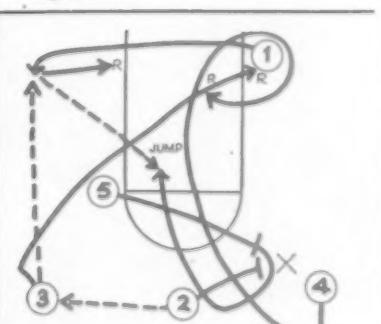
Diag. 9



Diag. 10



Diag. 11



Diag. 12



## DEVELOPING

**T**HE astonishing emergence of the 6-7 to 7-0 foot players in basketball cannot be wholly attributed to spinach, clean living, and evolution.

True, the modern youngster is taller and heavier than the kid of the 1930 era. But he certainly isn't **FIVE** inches taller—which is about the average height advantage of the modern team.

Then what accounts for the wondrous influx of skyscrapers? One of the chief reasons is the encouragement and incentive now given them to play basketball. At one time, the outsize lad was something of a laughing-stock. His height and gracelessness made him a target for the wise-crackers, and he'd never

dream of going out for the team.

With the coming of the Nowaks, Murphys, and finally the Kurlands and Mikans, the situation drastically changed. Coaches became aware of the tremendous possibilities inherent in the big fellows. They learned that the big kids could be developed—that it was possible to greatly improve their coordination, speed, agility, stamina, and skills.

Once this lesson was hammered home, the great rush for the big boys began. The towering youngster was no longer a laughing-stock—he was a potential powerhouse. And every kid of outstanding size was begged to come out for the team. The result was a tremendous influx of big boys.



By RAY MEYER

Head Coach, De Paul University

## THE BIG BOY

Not every tall boy makes good immediately, of course. Most of them need lots of schooling. In fact, it may take two or three years for the developmental program to pay off. But the end results are well worth the effort, and it will behoove every coach to spend a lot of time and thought on the big fellow's developmental program.

At De Paul, we have certain activities we encourage the big boys to enter into. For example, we have them skip rope about fifteen minutes a day. This improves coordination between the arms and legs and also helps the boy get lighter on his feet. In the case of George Mikan, we got a coed to teach him how to dance and a fellow to teach him to box. I

believe these activities helped his rhythm and coordination.

A real big man doesn't necessarily have to hook his shots because he usually can outstep and outreach his defensive man. Hook shooters have good nights and bad nights, but a good big man who turns toward the basket and uses a simple push shot has good nights all the time. We usually place a chair on the floor

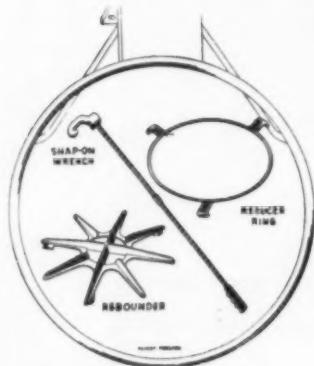
and make the pivot men go toward the basket. If they don't, they hit the chair. A few raps will accelerate the learning process.

In teaching big men how to shoot off the line, we make them use quarter-turns at the beginning. We have the men face the ball and feed in to them from the corners. We place a towel under their left arm to keep them from using it while

**REVERSE STUNT:** As this demonstration by Dolph Schayes reveals, this is a terrific move for a quick big man operating from the corner. The player comes up fast toward the back-court ball-handler and is hit on the dead run. (He doesn't stop or slow-down for the pass—this is vitally important.) Upon receiving the ball, he comes to a dead stop (No. 6), pivots sharply on the front foot, takes a short step with the other foot (No. 7), and drives for the goal. Schayes' execution is tremendous.



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shooting with the right hand. We want them to take a short hop to meet the ball, and when catching the ball away from the body not to bring it to the body in any kind of wind up.

As they turn for the shot, they bring the ball up at arm's length, keeping it directly in front of the body on the turn—providing good protection for the shot. Just before the ball is released, the left hand is taken off and continues on ahead of the shot. After shooting quarter-turns on each side of the basket, we feed from the front and let them take half-turns on their shots.

### BASIC FAKES

After they learn to shoot a little, we go into faking. In learning to fake, we give them a few basic moves. If the man is shooting with his right hand, we let him step away and toward the basket on his left foot. Instead of continuing on with his shot, we have him stop and look at the basket and his man.

If his man is with him, he can spring from him because he knows when he's going and the defensive man has to follow. He can continue on and use his right, or he can fake with his right and come back with his left, or he can double fake and use his right. From these basic movements, he will start developing his own.

Every coach has his own ideas of how he wants his pivot men to fake. We usually insist that they fake from the hips upward with an occasional foot-fake on reverses.

After shooting this way awhile, we introduce a drill for rhythm and coordination around the basket. They shoot with the right hand, and as the ball comes through the net they catch it with the right hand with the right foot extended forward. Then they go off the right foot and shoot with the left hand. The procedure continues with the men catching the ball with the left hand on the left foot, getting ready to shoot with the right hand.

In order to get the big boys to move on defense, we have the smaller boys pair off with them one-on-one. We give the little men the ball and have them dribble past them or shoot over them. The big men don't like to be shown up by the little men, and will show speed and determination in sticking with them. Unless they do this, the little men will go by them all night long.

Then we go into tipping. We pair our centers under the basket and have one throw the ball over the

basket and let the other fellow tip with one hand. We want him to use only the outside hand because he can get up higher with one and can use the other in case the ball rebounds over the center of the basket. A big center should cover two sides of the board, the side he is on and the middle.

The ball is controlled by the fingertip in rebounding. We have them rebound on both sides so they can use either hand well. We also tell them to rebound on the opposite side the shot is taken on in games. Offensive rebounding is one-handed and defensive rebounding is two.

Young centers make many mistakes in guarding a pivot man. The common errors are playing too close and playing the body too much instead of the ball. It's wise for the defensive center to play up a little on the same side of the ball to make it difficult for the pivot to receive the pass. After the pivot receives the ball, however, the defensive man should move directly behind him about a foot away.

The reason for not playing too close is that if the pivot makes one fake move, you're lost with no chance to recover. There's also the danger of fouling and—whenever you're draped over the pivot—you simply cannot switch to any free man cutting off him.

Playing a foot behind the man affords several advantages. You can play both the man and the cutters and you can see if the pivot hands off to them.

### PLAY THE BALL

Remember, it's essential to play the ball and not the body motions. That will make you tough to fake out. Another essential point is not to let the pivot back you under the basket. If he sets up deep underneath, play him from in front.

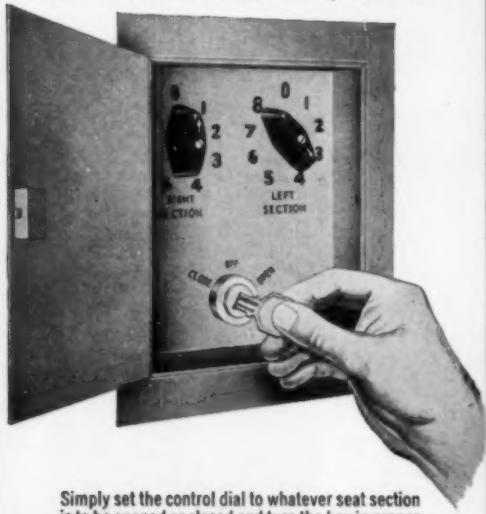
Big boys blessed with weak hands or wrists can strengthen them by continually squeezing a little sponge ball. In the off-season, we like our tall fellows to play handball. You have to have balance to play this game, and this has great carryover value to basketball. Handball is also a fine developer of quick starts and stops.

One of the greatest coaches in the game, Roy Moyer is particularly respected for his soundly schooled clubs. He's the fellow who developed George Mikan, using the principles expounded in this article, and Ron Sobie, currently back-court starring for the professional N. Y. Knickerbockers. If you'd like to learn the details of his offense, check his article last November entitled "De Paul's Weave and Pivot Attack."

# *New* MEDART AUTOMATIC POWER-OPERATED GYM SEATS

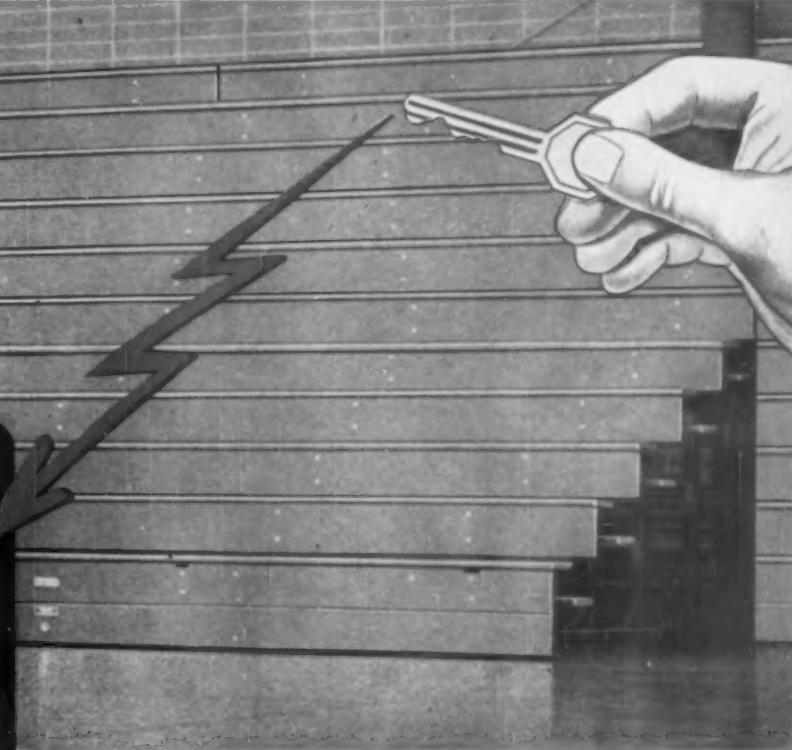
*eliminate all effort necessary for manual opening and closing. Cost is low*

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Automatic safety controls insure completely hazard-free operation. Removable keys prevent operation by all unauthorized persons. Medart Key-Operated Control may be installed any place in the gym for greatest convenience and utility.



Patents Pending

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self-contained within gym seat  
sections. Key-operated remote  
control may be installed anywhere**

- No floor tracks or building changes are necessary. The installation of power operation requires no other conditions than are needed for manually-operated seats.
- No complicated wiring is needed. Any ordinary 110-volt or 220-volt power source will do.
- Seats roll open or closed without binding or "crabbing". Straight-line trackage is an outstanding feature of Medart power-operated seats.
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- Smooth key-controlled power operation eliminates all crashing and banging of manually-operated seat sections by overly enthusiastic muscle men. Life of seats is prolonged—maintenance and upkeep are reduced to a minimum.

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# Badminton Illustrated

By **HUGH FORGIE**, *Internationally Renowned Professional*

**H**AVING demonstrated and described the mechanics of the serve, overhead, and around-the-head in Lesson No. 1 last month, the author—an internationally famous player, teacher, and entertainer—now turns his attention to the forehand and backhand strokes (demonstrated on pages 18 and 19). Emphasis is on the proper preparation of the body, feet, and racket to assure the desired depth, power, deception, and placement. A star of practically every entertainment medium, Forgie is currently starring in a badminton act that has been featured in the famous "Ice Capades" for the past 13 years.



**Key to a Good Forehand** is preparation. The left shoulder and left foot are turned toward the net, much in the manner of hitting a baseball or golf ball. Too many players stand square to the net.



**Preparation for Contact on Low Backhand:** The elbow is leveled low, the racket is high, and a flat grip with thumb pressure is utilized. The wrist is thus free to supply power and up-angle to the stroke.



**Preparation for Backhand Drive:** The elbow is leveled on a horizontal plane and the entire stroke stays on this plane. The shuttle thus travels hard and flat at this level. The thumb-up grip is used.

## LESSON NO. 2

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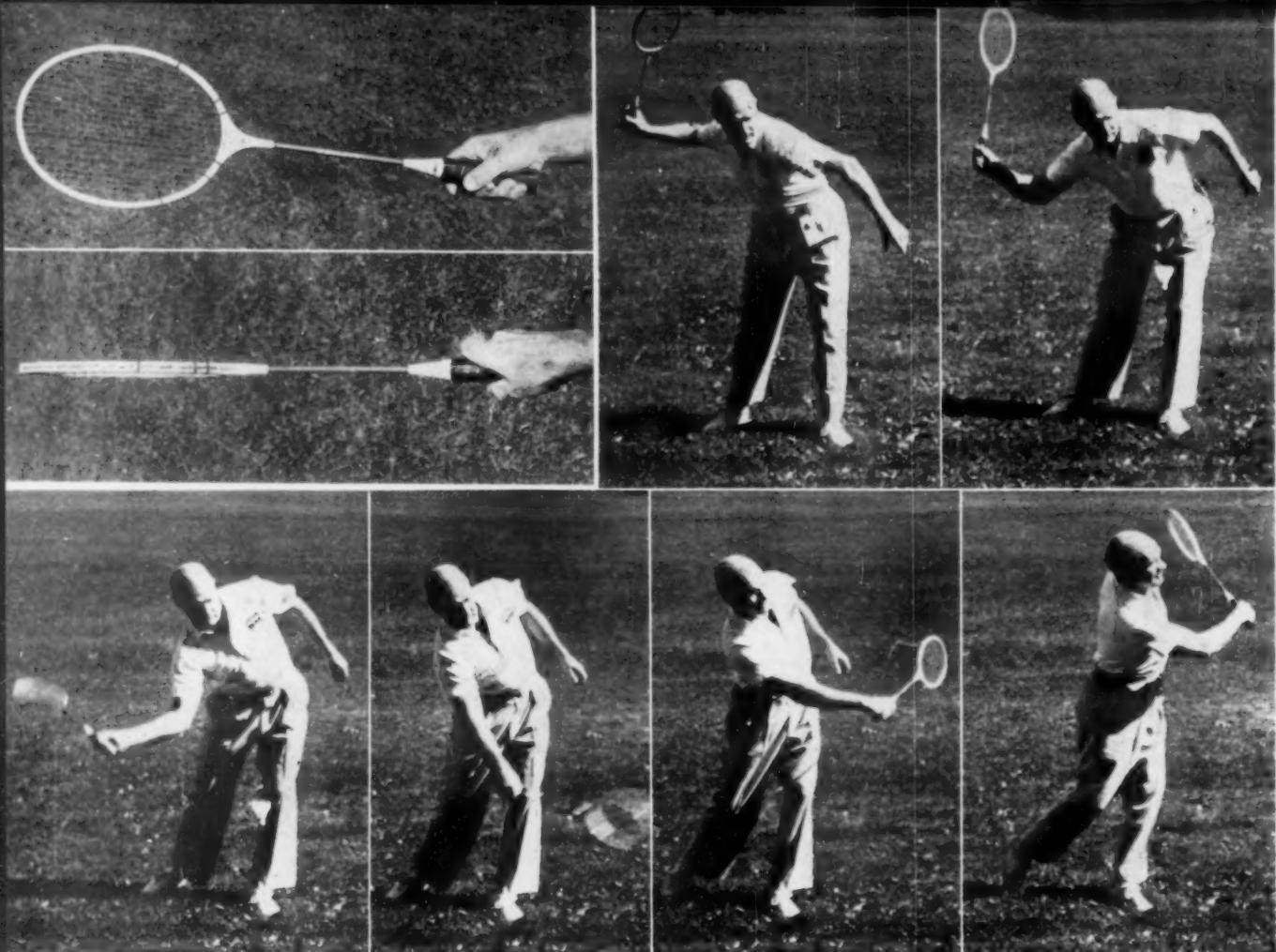
**WP** Fully padded suspension helmet with new Etholite plastic shell. Patented composite padding (airlite cellular and latex foam rubber). Snap out ear padding.

**WS** Suspension helmet offers the advantage of being very light with full ventilation. Etholite plastic assures confidence building protection plus long lasting beauty!

**RP** Exclusive one-piece molded Rubber Plastic shell. *Improved* protection with same patented composite padding as **WP** model.

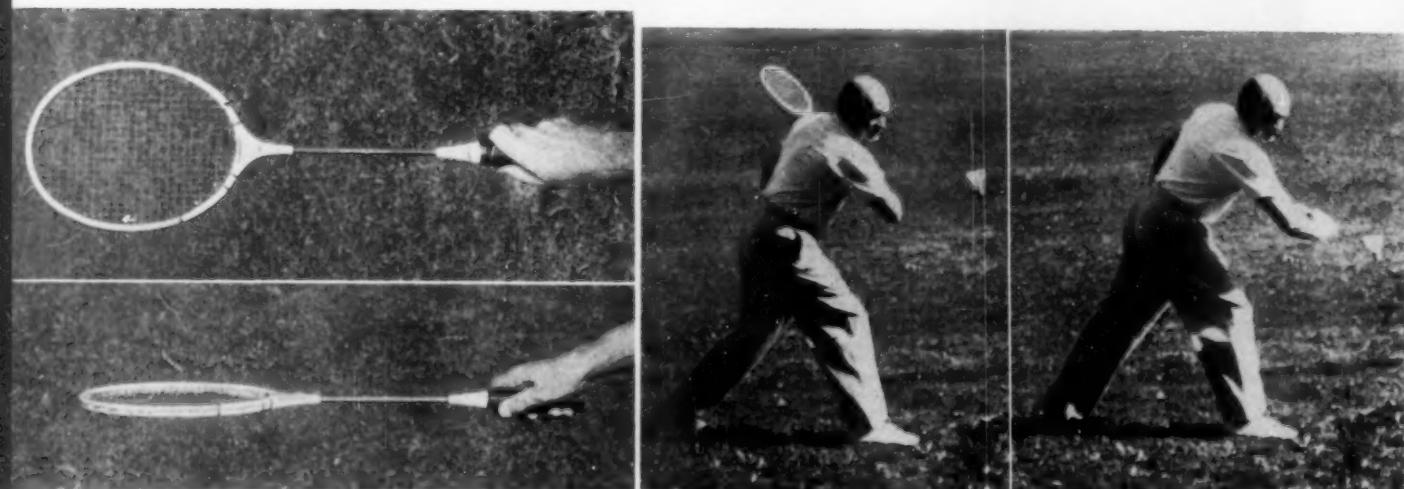
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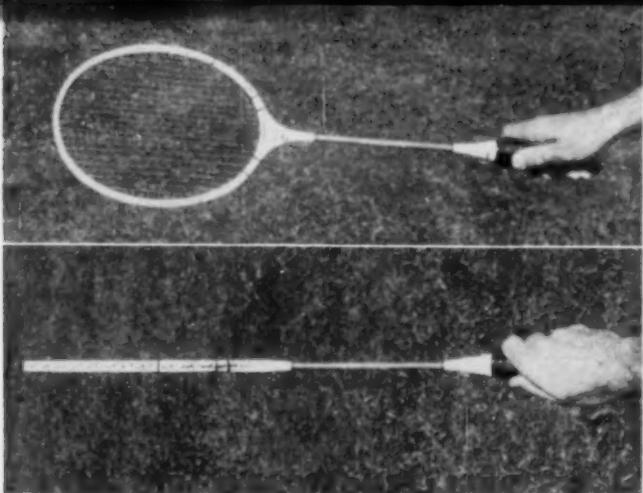
**LOW FULL FOREHAND CLEAR:** The baseball player, golfer, and badminton player have much in common. In this series, note similarity to golf. Left foot is ahead of right, racket is well drawn back, and hips lead stroke, while wrist is well-retarded—waiting until last split-second to lash out at shuttle. Left shoulder is over bird in preparation, and right shoulder

flows completely through. **Forehand Grip:** Handle is grasped so that V formed by thumb and forefinger is in line with racket head, little finger fitting securely on butt. Arm, wrist, and racket form straight line, and grip firms at contact. This must be done subconsciously, for there must be immediate relaxation to prepare for change of grip on next shot.



**CONTACT WITH BACKHAND BEYOND:** As shuttle approaches, right foot is forward, wrist is cocked, and elbow bent, with racket shaft close to upper part of left arm. The

elbow is leveled at point of contact and racket head is thrown at bird, establishing contact arm and racket distance away with weight shifting to front foot. **Flat Grip:** Used to rush



**LOW BACKHAND:** On a backhand met below the knees, I do not keep the thumb up but hold the racket between the forehand and backhand grips. While I do feel thumb pressure, my wrist is thus free to add angle and impetus to the shot. Shuttle is met off the right foot with elbow low and racket high. The racket is thrown with wrist well-retarded to come

in at the last split-second, and the follow-through is in line with the flight. Note difference in this follow-through and that in backhand where shuttle gets beyond player (below). **Backhand Grip:** Rotate right hand to left until thumb comes to rest firmly on side of handle with knuckles in full view. Note heel of thumb is almost free of flat surface, making wrist suppler.



service, defend face, and hit around head off drive service. By rotating this grip one-eighth turn in clockwise direction, you get grip used as a backhand for hitting shuttles which get

beyond you on backhand side (as illustrated in this sequence) and for low backhands in backhand forecourt. On these shots, the backhand hitting face is employed, of course.

# Effects of Warm-Up in Swimming and Basketball

**Extensive experiments at Penn State indicates that  
a formal warm-up significantly improves performance in  
speed swimming, endurance swimming, and foul shooting**

**C**OACHES and physical educators have always been vitally interested in the subject of warm-up—the effects of warm-up and how much warm-up is needed before attempting vigorous physical activity.

Many coaches advocate an extensive warm-up immediately preceding practice or competition. Their thinking is exemplified in the following statement by Lawther:

The preliminary warming-up to reduce viscosity, increase elasticity and flexibility, and tune the system to a higher physiological tempo (heart rate, blood flow and pressure, respiratory adjustment), adds to possible speed.

In regard to warm-up and its effect on endurance, Williams and Nixon suggest the following:

The warming-up exercises in which all athletes engage before strenuous competition have a close relation to endurance. The athlete commonly thinks of the warming-up exercise solely in relation to the muscles. He realizes that muscles work more efficiently when warm and are less likely to be injured. But we ought to note that warming-up promotes endurance because it sets in motion the whole process of bodily functions involved in violent muscular effort. The athlete who plunges into strenuous activity without this preliminary warming-up is likely to become exhausted before these functions have time to get well under way.

The effects of warm-up on accuracy haven't perhaps been explored as adequately as the relative effects of warm-up on speed and endurance. Lawther throws light on this important area of physical performance:

The principles of physiological efficiency mentioned earlier in connection with warming-up before competition are especially applicable to accuracy. One tunes up his physiological mechanisms, checks and puts a last minute touch to his motor patterns, and

readjusts his perceptual habits to the somewhat different backgrounds. The muscles become more elastic and more ready, body flexibility is increased, and the skill patterns get a motor rehearsal that warms and activates the muscle patterns and removes any chance sluggishness or temporary resistance to performance.

In this study an attempt was made to determine the effects of warm-up on certain phases of physical performance. The writers were particularly interested in swimming and basketball, and it was decided to investigate warm-up effects on speed and endurance in swimming and on accuracy in shooting basketball free throws.

A few previous studies are available in the above-mentioned areas. Carlisle conducted an experiment in swimming in which he used hot showers as a passive type warm-up for his subjects. He stated:

1. A subject showed an improvement in swimming performance in 220-yard swims of 1 1/2% following 8-minute hot showers. The difference in swimming speed was statistically significant.

2. Ten swimmers in 230 trials with various strokes showed an improvement of 1% for 40-yard time trials when the swims were preceded by 8-minute hot showers. A statistical consideration of the group data showed the difference in swimming speed between control and pre-heated swims to be highly significant.

It is suggested that at least in temperate climates, some passive pre-race heating of the body, in addition to some active work, constitute a valuable adjunct to the warming-up procedure.

Leonid Muido conducted an experiment in swimming which pertained to the influence of preliminary exercise and body temperature rise upon performance. He exposed his subjects to preliminary "jogging" for 10 minutes, heavy preliminary work on the bicycle ergometer for a 10-minute

period, hot showers, turkish baths, radio diathermy, and cold baths at different intervals of time. He concluded:

1. A given distance could be swum in a shorter time when the organism was warmed previously.

2. Both—active warming by preliminary work and passive warming by hot baths, radio diathermy and turkish baths—had the same beneficial effect.

3. The increased rectal, i.e., blood temperature, before swimming seemed to be more essential for improved results than the increased muscle temperature.

4. The duration of the influence of warming was at least 60-80 minutes.

5. It is quite probable that the beneficial effect of higher body temperature is due to the increase in the velocity of reactions.

Filipponi, in experiments with twelve members of the varsity swimming team at Springfield College, reported that the speed of swimming 100 yards was not improved by warming-up.

Skukic and Hodgkins in a recent study conducted at the U. of California investigated the effects of warm-up on basketball free throws for accuracy. Thirteen subjects were tested for accuracy under conditions of no warm-up; general warm-up with 12 jumping jack exercises; and related warm-up consisting of three free throws. The subjects were each tested a total of 12 times and each test consisted of 10 free throws. The experimenters reported the following:

While there was no significant differences among scores... using three methods of warming-up, a slight tendency toward better scores was noted in tests which were preceded by related warm-ups.

## PROCEDURES IN SWIMMING

The original subjects of the experiment were 85 male students between the ages of 17 and 28. They were enrolled in five different sections in an advanced swimming course in required physical education at The Pennsylvania State University during the 1956-1957 academic year. At the conclusion of a four week training period, 25 of the subjects were dropped from the experiment because they failed to reach a plateau of consistency in either time trials or in number of laps swum. Hence, 60 subjects completed the experiment.

By DON SWEGAN and HUGH L. THOMPSON

Physical Education, The Pennsylvania State University

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# Raleigh RECONDITIONING Shoe Life Extension PROGRAM

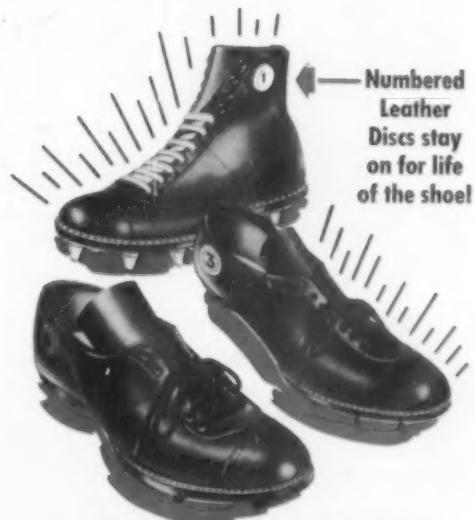
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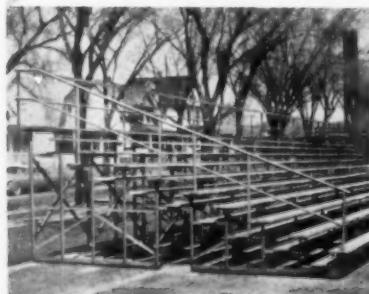
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At the onset of the experiment, the subjects were pre-tested on a 30-yard sprint swim and a five-minute endurance swim. On the basis of the preliminary tests, the subjects were assigned to a sprint or an endurance training group.

During the course of the experiment, the subjects participated in the instructional program of swimming in addition to the experiment on the effects of warm-up. Classes met three times weekly on alternate days.

The instructional program consisted of learning a racing start from the end of the pool and these strokes: American crawl, side, over-arm side, trudgen, trudgen crawl, breast, elementary back, inverted breast, and back crawl. The students swam a minimum of 300 yards per class period using the above strokes.

Before every class for four weeks, each student was required to do one of the complete routines described below. The routine used depended upon the group to which the individual was assigned.

#### Sprint swimmers:

1. Two 60-yard sprints at three-quarters speed, using only the American crawl.

2. Flutter kick for 60 yards, using no arm stroke.

3. Arm pull for 60 yards, using no leg kick.

4. One 30-yard sprint at full speed, using the American crawl.

5. Two 60-yard sprints at full speed, using the American crawl.

#### Endurance swimmers:

1. Two 60-yard sprints at three-

quarters speed, using only the American crawl.

2. Flutter kick for 60 yards, using no arm stroke.

3. Arm pull for 60 yards, using no arm stroke.

4. One 30-yard sprint at full speed, using the American crawl.

5. A five-minute endurance swim at full speed, using the American crawl.

Each day, after the completion of the class instructional program, all subjects were given a five-minute rest period prior to either speed or endurance testing. The speed swimmers were then timed on a 30-yard sprint swim, and the endurance swimmers were timed for five minutes and the number of laps swum was recorded.

At the end of the first four weeks, the cumulative records of the endurance and speed swimmers were reviewed. If the individuals in the study had not reached an approximated time or lap plateau, they were dropped from the study. Thus, 34 sprint swimmers and 26 endurance swimmers completed the experiment.

The last four weeks of the experiment were devoted to testing the subjects of both groups under conditions of warm-up and no warm-up. Each group was tested six times with no warm-up, three times with a formal warm-up, and three times with an informal warm-up.

The type of warm-up used each day was planned from a staggered schedule for each of the five class groups. Speed or endurance testing for each group was done during the

TABLE 1: PERFORMANCE SCORES FOR SPEED SWIMMERS  
(Time in Seconds)

	Mean Total for Three Trials	Standard Deviation	Standard Error of Mean	r	Critical Ratio
No Warm-Up	57.94	9.92	1.70		
Formal Warm-Up	56.99	10.12	1.74	.99	3.96*
No Warm-Up	57.79	10.19	1.75		
Informal Warm-Up	57.42	10.25	1.76	.99	1.68

\*Significant beyond the 1% level of confidence.

TABLE 2: PERFORMANCE SCORES FOR ENDURANCE SWIMMERS  
(Number of Laps Swum in Five Minutes)

	Mean Total for Three Trials	Standard Deviation	Standard Error of Mean	r	Critical Ratio
No Warm-Up	70.85	10.51	2.06		
Formal Warm-Up	72.12	10.16	1.99	.96	2.19*
No Warm-Up	70.35	10.22	2.00		
Informal Warm-Up	70.88	10.60	2.08	.99	.56

\*Significant beyond 5% level of confidence.

TABLE 3: PERFORMANCE SCORES FOR BASKETBALL PLAYERS  
(Number of Free Throws Converted)

	Mean Total for 60 Throws	Standard Deviation	Standard Error of Mean	r	Critical Ratio
No Warm-Up	37.55	5.03	1.13	.75	
Formal Warm-Up	44.35	4.05	.91		9.07*

\*Significant beyond the 1% level of confidence.



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last four weeks of the experiment.

**Testing with no warm-up:** The subjects entered the pool area without a preliminary shower. No activity was permitted after entering the pool area and each subject rested five minutes. After the rest, each speed swimmer was timed on a 30-yard sprint and each endurance swimmer was checked for the laps swum in a five minute period.

**Testing with formal warm-up:** Each subject was required to take a hot 3-minute shower before entering the pool area. He then went into the pool and did one of the following routines, depending on the group to which he had been assigned:

### *Sprint swimmers:*

1. Arm pull for 30 yards, using no leg kick.
2. Flutter kick for 30 yards, using no arm stroke.
3. One 60-yard sprint at three-quarters speed, using the American crawl.

### *Endurance swimmers:*

1. Arm pull for 30 yards, using no leg kick.
2. Flutter kick for 30 yards, using no arm stroke.
3. A 2 1/2 minute swim at three-quarters speed, using the American crawl.

After completing the warm-up, each swimmer was required to rest in a sitting position for five minutes. After the rest, the speed group of subjects was timed on a 30-yard sprint swim and the endurance swimmers swam as many laps as possible in 5 minutes.

**Testing with informal warm-up:** Both the speed and endurance groups omitted the hot shower and went directly to the pool area. Both groups were put through a series of warm-up exercises conducted in cadence. The exercises were selected to involve most of the large muscles of the body. Exercises were selected from Staley, Kiphuth, and Stafford and Duncan.

After the subjects completed their exercises, they rested for five minutes in a sitting position. The speed swimmers were then timed on a 30-yard sprint and the endurance swimmers were checked on the laps swum in five minutes.

## FINDINGS IN SWIMMING

**Speed in swimming (Refer to Table 1):** The mean time with a formal warm-up was .95 seconds faster than without a formal warm-up. A critical ratio of 3.96 was obtained between the scores with no warm-up and those with formal warm-up.

The scores were expressed in number of seconds required to swim 30 yards by the 34 speed swimmers. This t-ratio indicated that there was a significant difference between performance with no warm-up and performance after formal warm-up in speed of swimming 30 yards.

A t-ratio of 1.68 was obtained between the scores with no warm-up and those after informal warm-up in

time of swimming 30 yards by 34 speed swimmers. This critical ratio indicated that there wasn't a significant difference between performance without warm-up and performance after informal warm-up in sprint swimming for a distance of 30 yards.

Each individual's total times for three trials preceded by a formal warm-up and three trials with no preceding warm-up were analyzed to determine individual differences.

27 of the 34 speed swimmers swam from .1 of a second to 3.2 of a second faster after participating in a formal warm-up prior to testing than they swam with no preceding warm-up.

Seven of the 34 subjects swam from .2 of a second to .9 of a second slower after participating in a formal warm-up prior to testing than they swam with no preceding warm-up.

Each individual's total times for three trials preceded by an informal warm-up and three trials with no preceding warm-up were analyzed to determine individual differences.

21 of the 34 speed swimmers swam from .1 of a second to 2.2 of a second faster after participating in an informal warm-up prior to testing than they swam with no preceding warm-up.

11 of the 34 subjects swam from .1 of a second to 1.6 of a second slower after participating in an informal warm-up prior to testing than they swam with no preceding warm-up. Two of the speed swimmers had the same times after participating in an informal warm-up as they did with no warm-up.

**Endurance in swimming (Refer to Table 2):** The endurance swimmers as a group swam 1.27 laps farther after participating in a formal warm-up than they swam without warming-up. A t-ratio of 2.19 was obtained between the performance scores without warm-up and performance scores with formal warm-up in number of laps swum of 26 endurance swimmers for the five minute endurance swim.

This t-ratio indicated that there was a significant difference in endurance swimming after participating in a formal warm-up and without any warm-up.

An insignificant t-ratio of .56 was obtained between the scores without warm-up and those after informal warm-up, expressed in number of laps swum by the endurance swimmers. This critical ratio indicated that there was no significant difference in the performance after an informal warm-up and without any warm-up.

Each individual's total number of laps swum for three trials preceded by a formal warm-up and three trials with no preceding warm-up was analyzed for individual variances.

14 of the 26 endurance swimmers swam from 1 to 6 laps more after participating in a formal warm-up prior to testing than they swam with no preceding warm-up.

Eight of the 26 endurance swimmers swam from 1 to 3 laps less after

\*(Continued on page 52)

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## A Well-Rounded Small-School Physical Ed Program

**I**N CONSIDERING what type of physical education program a small school would be able to offer, one would have to think of such essential factors as size, facilities, community resources, finances, etc. These and varied other problems confronted us when we began to develop a program at Shipshewana.

Our school has approximately 230 students in the upper six grades; a playground area of approximately three to five acres; and a gymnasium with a basketball floor roughly 45 ft. by 75 ft. with bleachers (permanent) on two sides, a stage at one end, and a plain wall at the other end. The school district lies in a rural farming area where community resources are practically nil, and there were no funds available from the school corporation.

We began our reorganization by establishing a set of objectives for the program:

One, to educate the physical being of every student;

Two, to provide a variety of healthy wholesome activities that would stimulate (motivate) the student to obtain as great a degree of skill and knowledge as he, or she, possibly could;

Three, to develop a greater degree of physical fitness within the student; and

Fourth, to provide worthwhile carry-over types of play and recreation.

After developing our objectives, we decided it would be desirable to devise an evaluative system that would motivate all students rather than just the few physically gifted. In order that all students would have equal opportunity to attain an "A" grade, we selected McCloy's Classification Index I as a means of classification. We were thus able to give each student a Classification Index placing him in the lightweights (I), mediumweights (II), or heavyweights (III).

Each student could then accumulate points toward his grade in the following manner: by physical proficiency (using a point rating scale of proficiency in the activities presented); knowledge tests; inspection checks; squad participation; attendance; and a subjective rating scale of the student's attitude and participation in the activities.

Each class (average size of 30 students) was divided into squads of comparable ability with no less than five nor more than seven members to a squad. (Using subjective judgment, I appointed squad leaders from among those who possessed the best all-round physical ability.)

In establishing the activities for

our program, we decided upon three phases: First, activities open to all the students; secondly, an extensive intramural program open to all who wished to participate; and third, a well-rounded interscholastic program to meet the demands of the athletes.

From the beginning, we decided that the varsity-type (short-lived) activities wouldn't dominate the program because they had relatively little carry-over value after graduation. We decided that individual and dual type activities such as bowling, roller skating, golf, tennis, archery, badminton, deck tennis, table tennis, shuffleboard, horseshoes, etc. would be applicable to our program.

How can you do these things on a basketball court? This question was easily answered when we found that our basketball floor instead of being used by 10 of the most physically competent boys could just as easily accommodate 40 to 70 students not as well physically developed.

We set up our program something like this:

**FALL:** We begin with a physical fitness test consisting of different items to let the student discover for himself some of his weaknesses (the scores are recorded on the student record sheet). Then comes softball or baseball, flag football, speedball, and horseshoes.

**WINTER:** Basketball, badminton, boxing, bowling, dodgeball, deck tennis, gymnastics, roller skating, shuffleboard, and minor games.

By **RICHARD D. MILLER**, Shipshewana-Scott H. S., Shipshewana, Ind.

# Why a NISSEN trampoline belongs in your gym

## 1 IT'S FUN

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## 2 SIMPLE TO TEACH—EASY TO LEARN

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## 3 GOOD GROUP ACTIVITY

A dozen and a half boys and girls can work the Trampoline as a group. They pick up pointers watching others perform while they wait their turn. Adds real competitive spirit to the sport as well.

## 4 EXCELLENT CONDITIONER

Trampolining develops muscular-visual coordination and timing. It's good exercise, a good body builder. Breath control and good posture come naturally with the Trampoline.

## 5 BENEFITS ALL

This is important to physical educators. So many programs benefit only the athletically inclined, do very little for the average or physically below average student. Not Trampolining. All boys and girls regardless of their natural physical ability enjoy and benefit from the Trampoline.

## 6 NISSEN—THE ORIGINAL TRAMPOLINE

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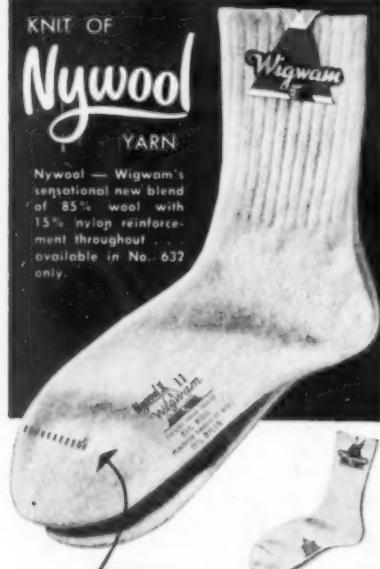
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**WIGWAM MILLS, INC.**  
Sheboygan, Wisconsin

**SPRING:** Volleyball, track and field, archery, tennis, and golf, with another physical fitness test at the end to enable the student (and the instructor) to determine to what extent he has progressed physically.

These activities are offered according to age level; they're not presented to all classes. However, we do use calisthenics, combatives, and minor relays throughout the program regardless of age level.

All of the activities carry over into our intramural program, which is conducted during the noon-hour period. For team events, the boys participate in class units. In the individual events, points are given for individual participation. These points (individual and team) are accumulated throughout the year and the class with the most points wins the Intramural Trophy.

#### AWARD TOKENS

We award a greater number of points for individual participation to encourage all to engage in the intramurals. Also, we present charms or small tokens (approximate cost 50¢) to the winners of the individual or dual events.

By now the thought probably predominate in your mind is the cost of these activities.

For roller skating, we purchased a clamp-on type skate with a rubber plastic wheel that produces little damage to the gym floor (wood) other than surface marks to the finish. Fifty pair of these skates were purchased for approximately \$390—little more than most schools spend for a set of new uniforms for the basketball team.

In setting up our bowling, we purchased two rubber mats 36 inches wide by 65 feet long (cost \$68) that are rolled out on the gym floor to form the bowling lane. Used bowling balls were purchased from a bowling alley in a neighboring community (cost \$5 each), who donated the pins.

Archery equipment consisting of six bows (different weights) and four dozen arrows plus several target faces ran less than \$100. Schools can cut the cost of target faces by buying oilcloth at a department store and painting the circles on. Almost any farmer in the community will provide bales of straw for backstops.

Table tennis equipment may be purchased at a reasonable cost. If funds aren't available, the tables can be built for less than \$20 either by the industrial arts class or by some lumber concern in the community.

Badminton racquets and shuttle-

cocks can be supplied at an approximate cost of \$30. Where properly used, they will last several years without replacement.

Our tennis courts (which will be flooded in the winter for ice skating) are a product of community assistance. Since no school funds were available, the local Lions Club undertook the task of constructing the courts. Part of the funds were raised by a benefit roller skating basketball game between the Lions Club and members of the school faculty. Additional tennis equipment can be purchased for less than \$50.

Most of the other equipment used in our program will be found in practically every high school—basketballs, volleyballs, footballs, soccer balls, protective mats that can be used for gymnastics, and softball or baseball equipment. Boundary lines can be painted on the gym floor with water color paints that are easily removed with a damp cloth.

Have we mentioned everything in our recent program? Certainly not. Other activities will be added as additional funds become available.

#### USE ATHLETIC DEPT. FUNDS

Since no school corporation funds were available, where did the money come from? All of the equipment (approximately 8 to \$900 worth) was purchased with athletic department funds—representing the accumulated gate receipts of basketball games. Thus the lodestars of our physical education program—the varsity athletes—have enabled their less-talented fellow students to enjoy a well-rounded activity program.

Have our athletics suffered? Not at all. Perhaps our athletes may have to make their uniforms last a little longer . . . practice with older balls . . . forget about being fed after every game. But their compensation is a feeling of pride in their role in the total program.

Can every small community develop a similar program? My answer would be "yes." Communities with greater resources than ours are failing through lack of knowhow and drive. A little imagination and a lot of hard work can compensate for many shortcomings and produce a well-rounded physical education program.

In these turbulent times, with the importance of physical fitness so acute—with so many observers claiming that a physical fitness emergency either exists or is possible in the near future—every physical educator should make a decided effort to expand and intensify his program.

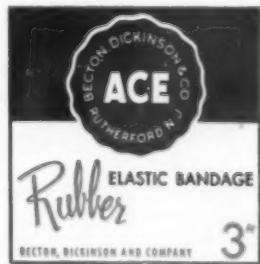
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B-D

# Training-Room Germ Carriers

**Coaches, trainers, and team doctors often forget  
that equipment can be strong infection carriers**

**E**VERY coach, trainer, and team physician can think of some personal error in judgment . . . strapping adhesive on a player allergic to it . . . sending a player back after an apparently harmless head blow and having the athlete pass out on the field . . . overlooking those unclean boxing gloves that caused eye complaints and that wrestling mat that caused impetigo . . . failing to spot a nasty knee problem on an X-ray.

Luckily, we deal with young people who are in fair health and whose resistance to infection is comparatively high. They take to conditioning after being forced into it, and can throw off infective factors that would toss a non-athlete for a loss.

However, we can't always bank on the resistance of youth. Infections have a way of sneaking by the trainer or coach and wreaking considerable havoc among the boys. When or, better yet, BEFORE this occurs, you should take close stock of your athletic property. Under the crush of time and pressure, coaches, trainers, and team physicians often forget that athletic equipment can be a powerful carrier of infection.

Let's take a few examples:

**HYDROTHERAPY:** Foreign organisms introduced into the tank don't always go down the drain when you pull the plug. For that reason, a whirlpool bath becomes an excellent conveyor of potential skin disease.

Scrapings from many tanks reveal multiple varieties of bacteria, spores, yeasts, molds, and fungi; and some of these virulent organisms take more than 20 minutes of boiling to kill. Hydrotherapy tanks CAN provide an impartial incubation chamber vending infection to

all . . . and it sometimes happens that way.

#### *Suggested Procedure:*

1. Check your tanks daily. If they're lined with deposit, remove it with janitor's bowl cleaner.
2. Dry the tank. Swab the inside with undiluted germicide.
3. Cover the tank after rinsing. Just as a wound is never left open to further contamination, handle the hydro likewise as a precaution.

4. When the tank is filled for the next athlete, throw in a handful of detergent for the hard water and some germicide for the boy. Both help.

**POWDER BOXES FOR FOOT CARE:** The "powder box" has had its day. Besides being messy, it's a flagrant conveyor of infective organisms. The athlete sits there and paints his feet with tincture of benzoin and then shoves them into the powder vendor.

The "powder box" thus provides housekeeping facilities for everything from athlete's foot, verruca plantaris (warts), and jock-strap itch to impetigo. This applies to the powder, the box, the seat on which the boy sits, and worst of all that tincture of benzoin bottle.

The skin products of everyone's feet go into that public container and because benzoin has little or no antiseptic value to overcome its new passengers, it provides a perfect medium for transplanting organisms from one athlete to another.

How is the problem answered? Eliminate the powder box!

**Procedure for Skin Care:** Have the athlete apply vaseline liberally to the foot. If each boy is given his own container, he won't have to stick his feet into a public trough; thus, a distressing problem can be solved efficiently, economically, and with no mess.

Where tenderness, calusses, and blisters continue, have the athlete wear thin cotton socks and then investigate for: (a) weak foot or arch problems, (b) structural imbalance—legs, hip, spine, (c) nutritional disorders or a history of past injury or disease, (d) also check for ill-fitting socks and shoes.

**PUBLIC CONTAINERS FOR MEDICATION:** That big can of analgesic, like the tincture of benzoin bottle with old swab sticks in it, and other cans of "gunk" into which everyone's hands dip, is another conveyor of organism that can contribute to skin contamination.

Luckily, as long as the resistance of the athlete remains high and that first line of resistance called the skin remain intact, he is safe. But the moment that skin resistance drops, the athlete or the trainer will unwittingly dip his hands into a mess of trouble.

**THE SHOWER ROOM FACTOR:** To most youngsters, a shower room is a place where two kinds of steam find an outlet, but only one comes out of a faucet. With more exuberance than care, they use the shower room to "get the sweat off" rather than for body hygiene.

For this reason, they should be instructed in correct showering habits. They should use mildly warm, never hot, showers with plenty of soap. The procedure is to rub from hands to shoulders, work the back and neck muscles, then the chest and abdomen, and finally the lower extremities—as the dirt that contributes to impetigo and boils goes down the drain.

Regular germicidal care of the floors and walls of shower and locker rooms is of course a necessity. So are restrictions on horesplay and having a personal towel. Getting flipped with a piece of laundry carries a sting, but it also carries bacteria native to the individual who flips it. This may sound like a lacer-panty operation, but too many injuries and infections resulting in the loss of players stem directly from such "trivial" causes.

Also to be noted in the showering technique is the standard rule that no shower shall be longer than three minutes, and all athletes during the winter season should leave the building with their heads and bodies adequately covered to prevent the lowering of resistance.

*(Concluded on page 40)*

**By DR. J. V. CERNEY**

*Trainer-Physical Therapist-Chiropodist, Dayton, Ohio*

# ***Coach Bobby Dodd's Training Rule No. 1***

- The paralytic effects of alcohol on the brain and nerves preclude any possibility of top performance on the part of the drinker—whether driving a car, taking an exam, “busting” through a line, or merely engaging in social expression. That's why “No Alcohol Drinking” is Rule No. 1 in every coach's training and conditioning creed.

This vital message is dramatically presented in the poster on the next two pages. Delivered by one of the most successful and most respected athletic administrators in America—a coach whose ideas have revolutionized football training—these golden words merit conspicuous display on every school bulletin board.

The poster may be easily removed for display by merely turning back the staples with a knife or letter opener. For additional copies of the poster, check the “Alcohol Education” listing in the Master Coupon on page 63.

**ALCOHOL EDUCATION**

IN THE POSTER ON  
THE FOLLOWING PAGES



The K  
KI

Food  
"One of the worst mistakes  
to try to play ball with alcohol.  
your line-up. It's a

fine body and brain coordination  
timing, and that staying p

So why tackle something that's goi  
into thinking it's 'smart' or  
about pouring a poison into y  
people is to s

**ALCOHOL EDUCATION**

**1730 Chicago Ave., Evanston, Ill.**



# Keep Play That Never Fails

## KEEP AWAY FROM ALCOHOL!

**A Message from Bobby Dodd**  
*Football Coach and Athletic Director, Georgia Tech*

akes an athlete—or anyone—can make is  
ol. You can't afford to have alcohol in  
a traitor to your system. It ruins that  
ation, that sense of judgment, that fine  
g power you need for top performance.  
going to ruin you? And don't be fooled  
or 'sociable' to drink. What's so smart  
o your system? My advice to all young  
o stay away from all forms of alcohol."

*Bobby Dodd*



# Questions and Answers on ALCOHOL

## Is Alcohol a Stimulant?

**NO.** It is a narcotic, and as such it suppresses or lessens the activity of living matter. By lessening the caution it gives a temporary sense of well-being. But over a period of time it acts as a depressant to both mind and body.

## Does Alcohol Increase Endurance?

**NO.** Alcohol saps energy and greatly increases fatigue. The reason for this is that alcohol slows down the removal of lactic acid (the acid formed by sugar in the body every time we exercise) and unless this acid is quickly removed the muscles soon tire.

## Is Alcohol Good for Nerves?

**NO.** Alcohol seriously upsets the nervous system. It disturbs the protective lipoids and dehydrates some of the moisture in the body which is so essential to proper functioning of the nerves.

## Does Alcohol Improve Judgment?

**NO.** One of the most serious effects of alcohol is on the cortex of the large brain, or cerebrum, which directs our thoughts and actions. It interferes with the "messages" which are received from the sensory nerves and also reduces normal "inhibition" or caution.

## Does Alcohol Aid Coordination?

**NO.** It interferes with both voluntary and reflex movements of the body, and completely upsets that "teamwork" between mind and muscle called coordination.

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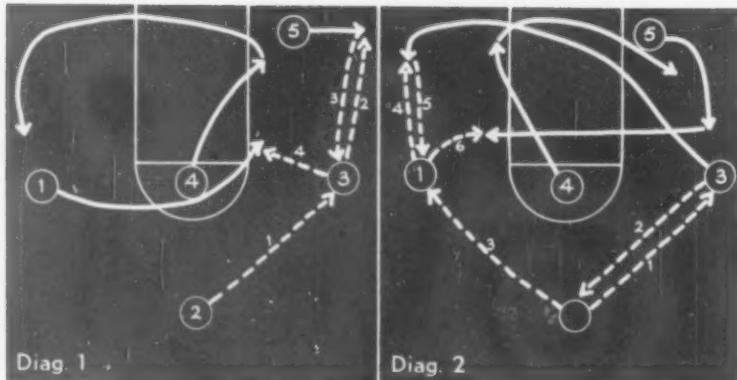
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Diag. 1

Diag. 2

## A 1-3-1 Zone Attack

By BILL JARRETT

Coach, Cottage Grove (Ore.) High School

**T**HANKS in great part to a specially designed 1-3-1 zone offensive pattern, Ontario High School won the Snake River Valley "A" League crown with 13 wins and 1 loss, took second place in the district tournament, and then went on to participate in the state tournament.

Our zone attack was born out of necessity. Since 10 of our 14 league games were against teams using zone defenses, we had to build an effective antidote to them. A review of our films convinced us we had to have a pattern that had movement, overloads, and penetration from the weak side.

Since so many zones tend to disregard the weak side in concentrating on the ball, we thought that by bringing a man in high or low from the weak side we could get practically all the shots we wanted from around the free-throw area. And that's precisely how it worked out.

A couple of variations from the main pattern were also developed—one to counteract a defensive overload on the side of the ball and the other to counteract defensive anticipation as we moved the ball from the strong side over to the weak side.

**Diag. 1** shows our basic 1-3-1 pattern. Nos. 1 and 3 designate wingmen, 2 is the point man, 4 is the high post, and 5 is the floater on the baseline. You want a good ball-handler at the point position (2), your best set shots at the wing

positions (1 and 3), and your center on the high post. The floater on the baseline (5) should be a good shot both from inside and the corners.

In **Diag. 1**, 2 passes to 3 who relays to 5 coming out on the baseline. As 3 moves the ball to the corner, 4 should drop down from the high post and look for a pass from 5. If 5 can't feed 4, he should pass back out to 3 on the wing position.

Sometimes 3 can get a set shot from this position. If he can't, then 1 should break in from the weak side for a pass from 3.

It's important for 1 to wait to break into the key. He waits until 3 has received the pass from 5. No. 4, who dropped to the baseline, will then go out to the weak side to fill the wing position vacated by 1.

If you haven't got a shot by then, you're ready to re-start the pattern with the men in their new positions. Nos. 4 and 3 will be at wing positions, 1 will be on the high post, 5 on the baseline, and 2 at the point position.

**Diag. 2** shows our movement from the strong side to the weak side. 2 passes to 3 on the wing position. As the defense shifts with the first pass, 3 passes back to 2 on the point and then cuts diagonally across to the weak side to become the weak-side wing man.

No. 5 moves up to the wing position vacated by 3. 2 passes to 1 who relays down to 3 on the baseline.

Then you start the basic pattern all over again, with 4 dropping off the high post.

If 3 can't shoot or pass into 4, he passes out to 1. As the latter receives the pass, 5 moves into the key from the weak side wing position. 4 rolls out on the weak side to give rebounding balance.

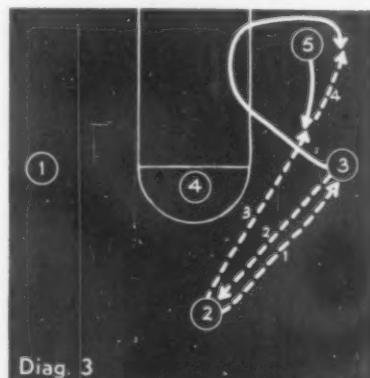
Whenever a team anticipates the movement of the ball from the strong side to the weak side and shifts ahead of the ball, we counter with the variation in **Diag. 3**.

No. 2 passes over to 3 and 3 passes back to 2 on the point position. 3 then starts his overload to the weak side. As he cuts diagonally through the key, he watches the point man.

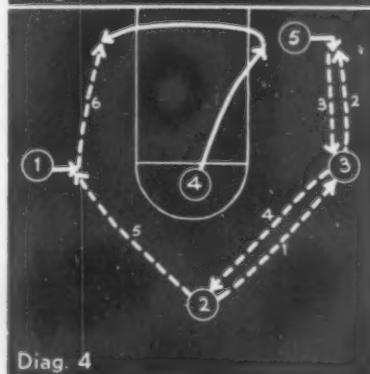
If the defense overshifts to the weak side, 2 passes right back to 5 who has moved up to the wing position. The latter can shoot or pass down to 3 who has doubled back on the baseline to become the floater. You can also go into the basic pattern from here.

Sometimes the defense would mass on the strong side and plug the free-throw area in order to prevent a pass into the man moving in from the weak-side wing position. We'd immediately call time and go into the variation shown in **Diag. 4**.

(Concluded on page 55)



Diag. 3



Diag. 4

Planned by John Lyon Reid and Partners (architecture-engineering), San Francisco, this "classic-modern" San Mateo, California, Hillsdale High School blazes a brilliant new path in school design. The top AIA award stamps it as one of the truly great school plants of the year. Photographs by Roger Sturtevant, San Francisco.



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## NORTHERN HARD MAPLE

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# COACHES' CORNER



Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 33 West 42 St., New York 36, N. Y.

FOR the past 10 years or so, the Oklahoma Sooners have been making mince meat out of the Big Seven Conference. When the Big Seven took on an eighth member in 1957 (Oklahoma A. & M.), the *Kansas City Star* asked its readers to suggest a new name for the Conference.

The prize suggestion came from columnist Bill Vaughan. It was: "Oklahoma and the Seven Dwarfs."

**Ronald C. Eastin**, the extremely versatile coach at Wray (Colo.) H. S., relays a theme written by his third-grade son as part of his schoolwork at Wray Grade School. Entitled "What My Daddy Does," it goes like this:

"My daddy is the coach of the Wray Eagles. He is a teacher of Mathematics and Mechanical Drawing. He is the coach of every sport except the Varsity Basketball team. He is a basketball referee. He is a volleyball player, too. My dad sells Compton Encyclopedias. We got our T.V. set that way. My Dad is a fireman. I think he has been a fireman ever since he got married to Mom. My Daddy coaches baseball, football, track, and wrestlers. His football team went to the state playoffs once. We had three state wrestlers last year. My Dad's mother's name is Edna Eastin. The whole family went to California two years ago. People are always griping about how Dad coaches football."

**The football coach**, an idealist who lived by the sportsmanship code, became incensed when he saw his right tackle haul off and kick the opposing guard in the stomach. He immediately ordered the boy off the field.

The boy looked surprised. "Why, Coach," he said, "I didn't mean to kick him in the stomach."

"How can you possibly say you delivered that kick in the stomach without intending to," roared the coach.

"Coach," explained the boy, "he turned around too quick."

**Frank Howard** took a lot of ribbing over the way his Clemson team was plastered by Colorado in the 1957 Orange Bowl Game. Morris Frank, *Houston Chronicle* wit, put it this way:

"Frank Howard doesn't have to win at Clemson. He wisecracks his way in the winter and they forget how many he lost in the fall. But at the half of the Orange Bowl game, even Bob Hope couldn't have got him out of trouble. And before the game was over, they wished Bob Hope was coaching."

**Peahen Walker**, Canadian pro coach, put in the needle this way: "I asked Frank about that short kick-off play. Did he send it in? He replied, 'You don't think my boys were dumb enough to use that play on their own, do you?'"

**At the Atlanta Touchdown Club's** annual soiree, Wally Butts scored a quick touchdown in referring to Bobby Dodd's designation as "King of the Bowls." He drawled, "I'm not qualified to talk here with the king, but I hope to be able to crown him."

Then, answering a dig from Peahen Walker, coach of the Canadian-Pro Montreal Alouettes: "I went up there to watch his team play and you should see the way they throw the ball around. Around here coaches preach control ball, but not there. One of Peahen's passers threw the kind of knuckle balls we throw here at Georgia and Peahen yelled out: 'Don't throw like that; it looks like the last show out of a Roman candle!'"

**The wife of one of the defensive tackles** on the Detroit Lions admitted: "It's really exciting to be married to a professional tackle. Every time he comes home he looks like a different person."

**The second-rate surgeon** returned from a hunting trip empty-handed. "I didn't kill a thing today," he snarled to his spouse.

"Why, that's the first time that's happened in years," replied his unsympathetic wife.

**The hunting neophytes** returned to camp after an all-day session in the woods. One limped in with his shoulder in a sling, another was nursing a superficial wound in his leg, a third had a bandage on his ear.

"Don't let it get you down," a veteran hunter cheered. "Anyway, that bulge in your bag shows you're not coming back empty-handed."

The fellow carrying the bag answered wearily, "That bulge is our hunting dog!"

**Our favorite hunting** cartoon shows a fat female hunter with a smoking rifle in her hands and a look of glee on her face. "I must have hit something," she's exulting. "Just listen to that language!"

**A trio of big game hunters** were resting by their campfire after a tough day on safari. One of them finally announced, "I feel kinda restless. Guess I'll take a short walk before chow."

Several hours later, one of the remaining hunters glanced at his watch. "Gosh," he said, "I wonder what's eating old Oscar?"

**A horse lover** bought a broken-down old mare, and ran into immediate heartache. When he went to the paddock to examine it, he found two veterinarian by its side.

"Is my horse sick?" he asked in dismay.

"Not too badly," they said. "We hope to pull her through."

"But will I be able to race her?" asked the owner.

"Most assuredly," replied one of the vets, "and probably beat her too!"

**The hot-rodder** arrived at the pearly gates in his souped-up car. "You're sure welcome," St. Peter told him. "But we don't allow cars up here."

"Then I'm in the wrong place," declared the hot rodder. "I'm going to try the basement."

Satan welcomed the young man. "Glad to have you," he chortled.

"Good," replied the hot rodder. "Gimme a map of your highways."

"Sorry," said Satan, "we have no roads down here. That's the Hell of it!"

**The hunting party** had been asked to bring only male hounds. One poor fellow, however, owned only a female and because of his needy circumstances he was permitted to include her.

The pack was sent off and in just a matter of seconds was out of sight. The worried hunters stopped to question a nearby farmer. "Did you see some hounds go by?"

"Yep," quoth the fellow.

"See where they went?"

"Nope, but it was the first time I ever seen a fox runnin' fifth!"

**A couple of fishing-tackle** salesmen were comparing notes. The first pro-



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duced a gaudy plug, shiny with all the colors of the rainbow.

"Do you sell many of those?" asked the other. "I can't see a bass ever going for such an awful contraption."

"I don't sell 'em to the bass," replied the other with a grin. "Just to the suckers."

*A lovely note* from a lovely lady: "Because my husband (Bill Robertson) and I have long been readers of *Scholastic Coach* and especially enjoy 'Coaches' Corner,' I thought you might like to see a couple of verses that Bill parodied.

"Bill has been trainer at Oregon State College for the past 11 years, and aside from his ability in the taping and repairing department he has acquired quite a reputation as an after-dinner speaker—which consists mainly of recitations. In fact, reciting is just about his first love—anything from Shakespeare, Service, Kipling, Burns, down to good old *Casey at the Bat*. So you can see why we like 'Coaches' Corner.' It certainly has added new verses and anecdotes to his already overflowing collections on sports."

So, thanks to Mrs. W. Mary Robertson, we'd like to present Bill Robertson's parody on a Kipling classic entitled, "Lines Written After Stanford (1956) to Coach Prothro":

### FOOTBALL-SOCCER BIBLIOGRAPHY

Schoolmen interested in an excellent bibliography of in-print books on football and soccer will find same in the current issue of *Sportshelf News*. To obtain a free copy, just send 10¢ for handling charges to *Sportshelf News*, Box 116, 10 Overlook Terrace, New York 33, N. Y.

*He knew—he knew what was coming,  
When he left for that Stanford deal.  
They piddled and piffed with iron,  
He'd given his orders for steel!  
Men of steel, blocking and tackling,  
It paid, I tell you, it did,  
When he came with his singlewingers and  
collared the Rose Bowl bid!*

*And they asked him how they did it, and  
he gave 'em the simple facts:*

*"You keep your linemen blocking a little  
in front o' your backs!"*

*They defended all they had scouted, but  
they couldn't defense his mind.  
And he left 'em sweating and swearing  
Just ONE great big point behind.*

*Duffy Daugherty* in the rough: "I'm a Civil War golfer: Out in 61 and back in 65."

## Training-Room Germ Carriers

(Continued from page 30)

This is a must in the care and prevention of athletic injuries.

**RE-USE OF PROTECTION PADS AND GEAR:** There's nothing wrong with the re-use of sponge rubber pads and hip protectors and all those numberless gadgets which versatile coaches or trainers can devise. There's also no argument about re-using expensive cotton elastic bandages.

But hygienic caution must be exercised. If those implements are not sterilized, they can pass infective agents on to another athlete.

**TRAINER'S "WAR BAG":** Though this pandora's box is the trainer's official insignia, it isn't always qualified to carry the good housekeeping seal of approval. Packed with as many bacterial violators as a physician's bag, the kit readily contaminates rolls of gauze, adhesive tape, swab sticks, cotton, etc., that are "kicking around" in it. Unwittingly it passes "bugs" on to the boys.

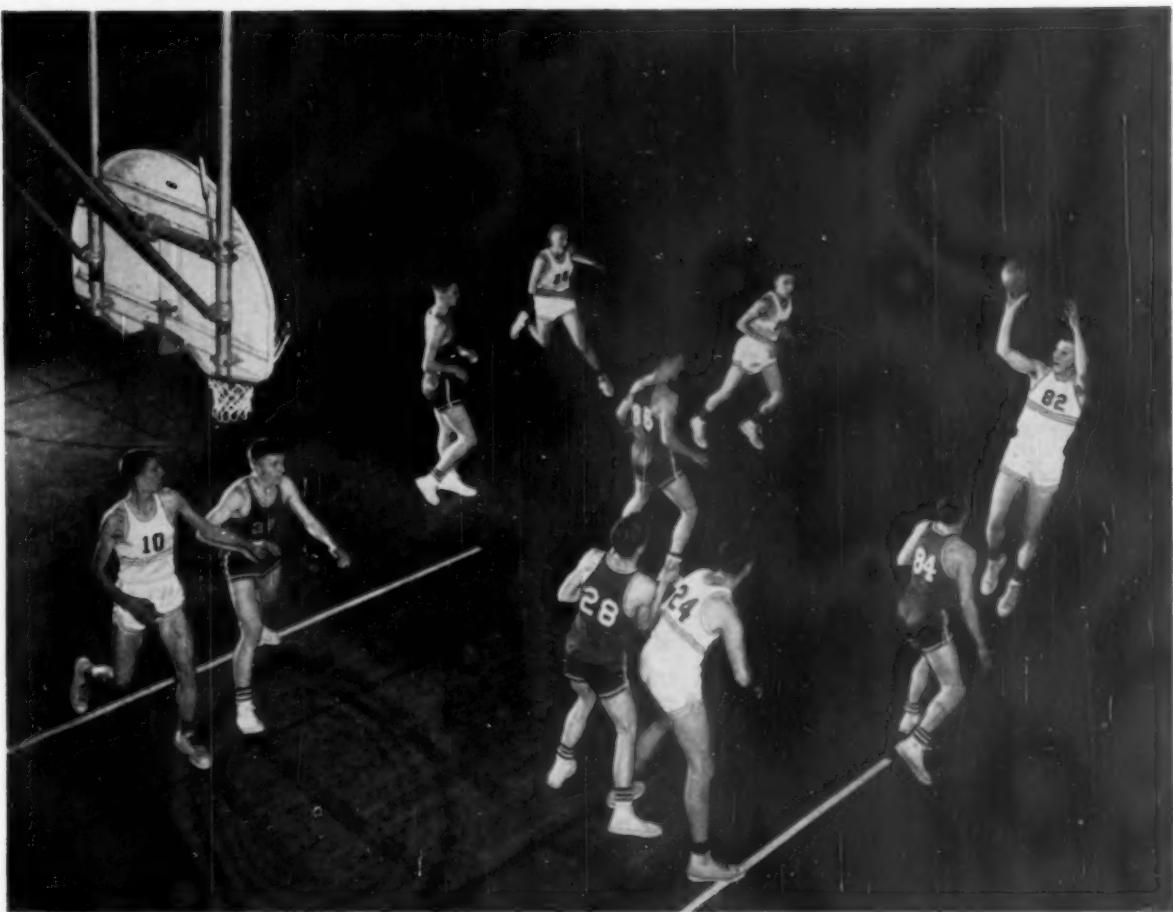
**PHYSICAL THERAPY ELECTRODES:** Most physical therapy equipment is contraindicated in treating active infections so that particularly virulent bacteria, hot

from the source, won't be picked up. However, there are normally great numbers of staphylococcus, streptococcus, pneumococci, and many other forms of skin organisms which may be transferred to an electrode from a healthy boy.

To prevent the electrodes from becoming carriers, anti-septicize all short-wave electrodes by swabbing with a germicide when the apparatus is disconnected. Boil all electrodes made of metal. If the "pads" to your muscle-stimulating equipment are of an absorbent nature, soak them in germicide. Sandbags should be renewed periodically and rubber binders, wraps or straps should get the antiseptic treatment too.

**THE TRAINER'S HANDS:** Semmelweis was ostracized years ago because he told surgeons they couldn't go from contaminated wards into obstetrics without infecting many of the expectant mothers and often causing their death.

This lesson carries over to modern athletics. When working on athletes, the hands, clothing, and equipment of the trainer or coach should be kept clean. Germicides are cheap and simple to apply.



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SC-11

# Outside-Ball Scoring Plays

(Continued from page 7)

been successfully used throughout the country.

## Out-of-Bounds Plays from the Side of the Court:

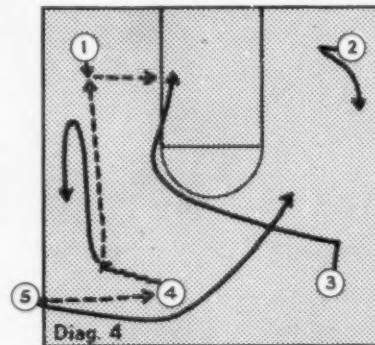
The play which CCNY colorfully entitled "The Four Horsemen" (Diag. 1) has been interestingly adapted by a number of teams for use in the closing minutes whenever they're being tightly pressed. Instead of lining up laterally, the four in-court men line up vertically as shown in **Diag. 2**.

At a signal, 1 breaks downcourt and button-hooks back from the outer rim of the circle. 2 feints to his right, crosses over behind 1, cuts down the near sideline, and button-hooks to face the ball. 3 executes a 180° turn around 4 into position for an in-bounds pass.

No. 4, after screening for 3, feints to his left and cuts downcourt, using 1 as a screen, if necessary, to free himself for a long pass. The outside man hits him if he (4) shakes loose, or passes to any of the other men if safety tactics are indicated.

to cut back for a pass from 5 or to cut off 2 if the pass is thrown to that man.

The outside man, 5, has the option of (a) passing to 1 and cutting around him; (b) of passing to 2 and scissoring around him with 4 as the second cutter; (c) or passing to 4, receiving a return pass, and passing to 3 in the corner and cutting around to the basket.



**Diag. 4** offers the excellent screening pattern from a 3-up 2-under set-up that Long Island U. utilized so successfully in the glory days of Coach Clair Bee.

After receiving the in-bounds pass, 4, usually the best dribbler and passer, can move to his left or right. If he moves to his left, he feeds into the left corner to 1. 5 cuts off 4's back and moves across court to screen for 3. The latter cuts behind the screen and moves through the open middle for the pass from 1. 2 keeps his guard busy and then drops back for safety purposes.

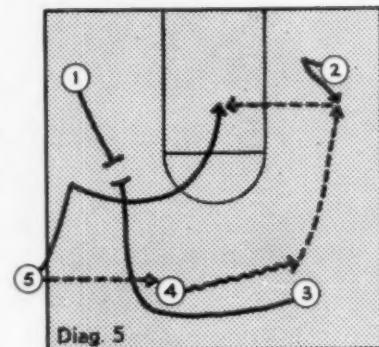
This play can go right just as easily and also possesses many options. For instance, 1 can follow his pass to 3 and take a return pass for a scoring chance. 2, after dropping back several steps, can feint right and cut left as a second cutter around 5, or move into a three-man weave with 1 and 3—a tactic which North Carolina State employs on occasion. Or 1 can fake a pass to 3 and hand off to 4 who'll try to run his guard into him (1).

Columbia, under its very capable coach, Lou Rossini, and the professional N. Y. Knickerbockers have used a double screen off a 3-up 2-under formation to shake loose such

**Diag. 3** illustrates a play which I've used successfully with five moving pivots and give-and-go tactics. It employs a 3-up 2-under pattern to lead into the pivot options.

No. 1, facing his man while using peripheral vision to keep 5 in view, takes his man toward the basket, hits with the left leg, pivots, and takes a long step with the right leg toward 5—ready for a possible pass from him. 2 and 3 scissor in the opposite corner, with 3 setting up a screen for 2, who moves into a pivot position for a pass from 5.

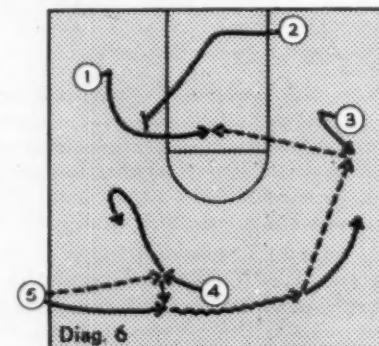
No. 4 moves into his defender, feints toward his right, and is ready



scorers as Chet Forte and Carl Braun.

As shown in **Diag. 5**, 4, after receiving the pass, dribbles right and bounce-passes to 2 in the corner. 3 cuts off his back and moves to the left to help set up a double screen with 1.

No. 5 moves toward the deep left corner and then cuts off the double screen to take a pass from No. 2. No. 5 also has the option of continuing to his left, running his man into 1 and receiving the pass underneath the basket.

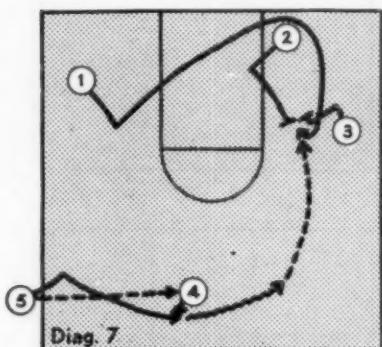


In the Midwest, many teams use a 2-up 3-under formation to set up their screen plays from out of bounds. **Diag. 6** presents a typical single screen play utilizing the pivot man as a post.

No. 5 passes to 4, receives a return, dribbles to his right, and bounce-passes to 3. Meanwhile 4 moves to his left, occupying his guard and serving as a safety. 2 moves across the foul area to set up a screen for 1, who feints left

and cuts around 2 for the pass from 3.

Several Far Western teams use a double screen to set up a shooter from the corner. The St. Louis Hawks utilize a similar pattern to set up their famed Bob Pettit (Diag. 7).



No. 5 passes to 4, receives a return pass, dribbles to his right, and feeds a bounce pass to 1, who has feinted to his right and moved to the left behind the double screen. Upon receiving the pass, he quickly goes up for a one-hand jump shot.

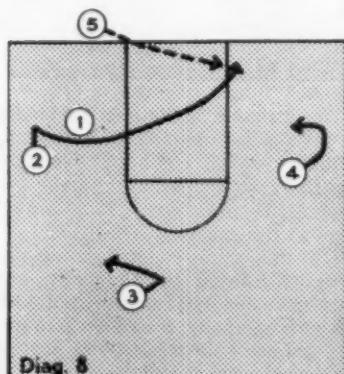
By moving the pivot man into screening position anywhere in and around the foul line area, any number of single or double screen variations may be developed.

#### Out-of-Bounds Play from Under the Basket:

Although the outside-ball situation underneath the offensive basket may not arise as frequently as that from the side, its proximity to the goal area gives it an importance of its own.

In an effort to gain maximum advantage in such a situation, many teams will place their big man between the foul and end lines and run their plays with and off him. City College of New York ran the play in Diag. 8 off its great pivot-shooter, Ed Roman.

No. 2 feints left and cuts off 1's back, trying to pick off his guard



# "High School Riflery Helps in Service and College"

Writes **SCOTT A. EDGELL**  
Instructor, Willoughby High School  
Rifle Club



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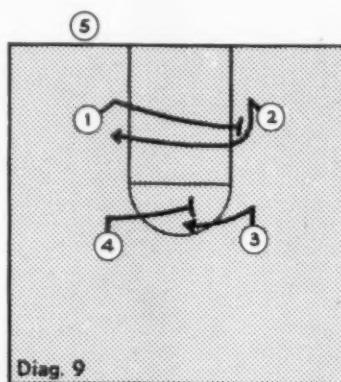
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and shake loose for a pass on the other side of the basket. If X-1 switches to 2, the outside man (5) may throw a high lead pass to 1, who can go up with the shot.

If the pick-off attempt failed, with no switch by the defense, CCNY then ran a third option. 1 feinted several steps to his right and cut back sharply to the left. 5 bypassed to 1, faked left, and then cut in-bounds behind the receiver. At this point, 5 could (a) dribble-drive in if his man was picked by 1; (b) throw a one-hand jump shot; (c) feed 4 cutting off a screen set up for him by 2, who, on failing to receive a pass from 5, rolled out to set the screen.



Diag. 9

Where a team has two good, big men and a good outside shooter, the play in Diag. 9 may pay big dividends.

No. 1, on the ball side, moves across the lane to set up a screen for 2. At the same time, 4 moves toward the foul line to set a screen for 3, who's usually the team's best shooter.

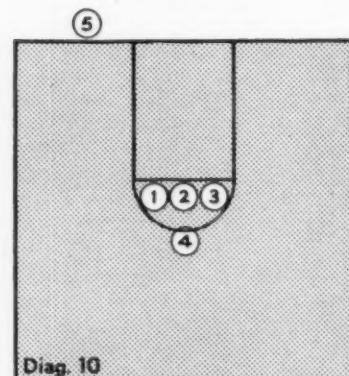
The outside ball-handler has the option of passing to 2 or 3, or setting up a sequence of moves by passing to 2 and coming in-bounds around the receiver and exercising one of the many options open to him.

Diag. 10 outlines a play which may be used anywhere within the foul and end lines but has been used most frequently as an end-line outside-ball play with the players situated on the foul line.

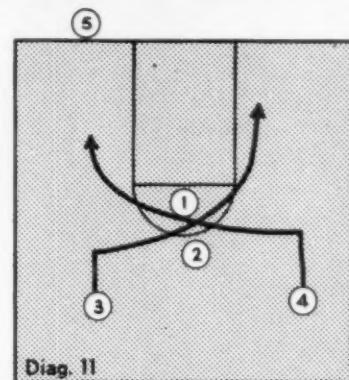
No. 4, the best shooter on the team, sets up behind a three-man screen. If the defense attempts to crowd in to prevent the pass to him, then 1, 2, and 3 may break in various directions, carefully avoiding contact with the defense, in an effort to confuse the opponents and break a man free.

Diag. 11 offers a foul-line play that employs the principle of splitting the post.

Nos. 1 and 2 face the basket, 2 being the best shooter on the team.



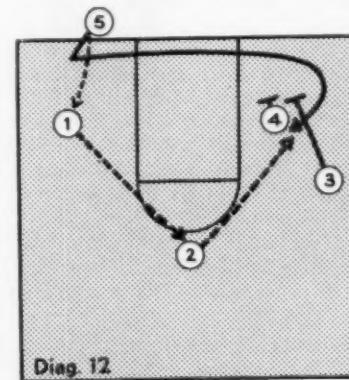
Diag. 10



Diag. 11

3 and 4 scissor around 1. If the defense drops back to protect against the cutters, the ball is passed to 2 for the outside shot. If the defense plays tight, one of the cutters should be able to shake loose for the pass.

Many western teams have employed the screen maneuver in Diag. 12 to uncover a player for a shot.



Diag. 12

No. 5 passes in-bounds to 1 who, in turn, passes to 2. The latter may dribble to his right or exchange positions with 1, who may have followed his pass to 2 and moved around the horn.

By this time, 5 has come in-bounds, feinted to his right, and moved to his left behind a double screen set up by 3 and 4. Either 1 or 2 passes to 5 behind the protective screen for the shot.

A word of caution is in order in connection with teaching out-of-bounds plays from underneath. Stress simplicity. Remember, the ball must be passed in within five seconds or your team will lose possession. This area will often be crowded. Hence, on an elaborate maneuver, the outside man may not find an open receiver in the allotted time.

Select a simple play; and with practice your team will develop its own optional moves.

In putting in this type of "special," you must keep in mind that certain defenses may wreak havoc with it. For instance, an intricate screening maneuver against a man-to-man defense may fall flat against a 1-3-1 zone that clogs the middle and renders all screening maneuvers null and void.

Always make sure that your special offensive stratagem is worked against the defense for which it has been designed.

With proper drill, everyone will know perfectly his assignments on given plays. The players should be rotated so that everyone will become familiar with the various details; and one player—a poised, cool, and excellent passer—should be given the assignment of flashing the signals and passing the ball in-bounds.

The plays should be run off precisely. If mistakes are made, the players should continue their movements and concentrate on securing possession in-bounds. Though baskets may be the ultimate aim of special plays, possession should be stressed above all else.

### TEEN-AGE TABLE TENNIS WORLD CHAMPIONSHIPS

TEEN-AGE table tennis players will have a chance to try out for the U. S. Junior Team that will compete in the International Junior Table Tennis championships on March 25 to 28 in London, England.

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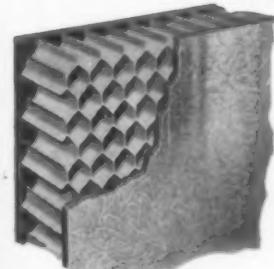
Any boy or girl under 18 by June 1 is eligible to compete. Interested players or coaches may get free information and rules from George F. Koehnke, Director of the National Junior Team Championships, 20 East Jackson Blvd., Chicago, Ill.

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## New Books on the Sport Shelf

### Miscellaneous

• **FOOTBALL AT OHIO STATE.** By Woody Hayes. Pp. 181. Illustrated. Columbus, Ohio: Woody Hayes.

ONE of the great ones in the coaching business, Woody Hayes is singularly qualified to author a technical tome, possessing all the prerequisite know-how, communicative articulosity, and organized mental processes.

But that in itself isn't rare. What IS rare is the uninhibited vigor with which he bares his coaching secrets. He pulls no punches, holds nothing back. The result is a wonderfully forthright and meaty contribution to the scientific football library.

A big (11" by 8 1/2") soft-covered text, *Football at Ohio State* offers a detailed insight into the way Woody coaches his powerhouse Buckeyes. He covers the field in 15 information-saturated chapters, namely:

Offensive Strategy, Running Game, Split T Series, Power Series, Trapping and Draw Play, Offensive Drills, Passing, Training the Quarterback, Defense, Kicking Game, Scouting, Statistics, Organization and Planning, Injuries, and Coach-Player Relationships.

All of these subjects are covered clearly and thoroughly, and illustrated with many large, graphic diagrams. This is a real football book written by a football coach for other football coaches.

• **FIELD HOCKEY FOR PLAYERS, COACHES AND UMPIRES.** By Josephine T. Lees and Betty Shellenberger. Pp. 119. Illustrated—photos and drawings. New York: The Ronald Press Co. \$2.95.

THREE famous field hockey experts have pooled their superlative talents in this text. The book covers equipment, skills, team tactics, and umpiring techniques, integrating the materials to show the relationship of one to the other.

The authors also describe each stroke and how to use it in game situations, and offer practice procedures to develop skillful stickwork. The duties of each of the eleven players are discussed, with special attention to forward-line tactics, backfield strategy, and goaltending.

Excellent diagrams help the player visualize her function on attack or defense and assist the coach in explaining player-movements and teamwork. A thoroughly detailed chapter on umpiring, by the famous official, May E. Perry, and an extensive glossary of field hockey terms complete the book.

Coaches, players, and officials on every level of competition will find this text an extremely complete and valuable reference source.

• **Getting the Most Out of Your .22.** By John G. MacKenty. Pp. 218. Illustrated. Englewood Cliffs, N.J.: Prentice-Hall, Inc. \$4.95. (Authoritative, easy-to-follow, complete, extremely colorful guide to America's most popular firearm.)

• **YMCA Water Safety and Lifesaving.** Edited by Harold T. Friermood. Pp. 48. Illustrated. New York: Association Press. 50¢. (Beautifully illustrated student handbook reflecting the best current thinking and practice.)

• **Outdoor Education for American Youth.** Prepared by AAHPER Committee under Julian W. Smith. Pp. 150. Illustrated. Washington 6, D.C.: AAHPER. \$2.50. (First text designed to teach teen-agers to enjoy the out-of-doors.)

• **Professional Preparation of Recreation Personnel.** Pp. 48. Washington 6, D.C.: AAHPER. \$1. (Recommendations by the Sixth National Conference on Professional Preparation of Recreation Personnel.)

• **1957-58 Guide to Books on Recreation.** Pp. 32. New York: National Recreation Assn. 25¢. (Annotated list of over 850 selected titles broken down into 37 convenient categories. Sports-texts listing is good but far from complete.)

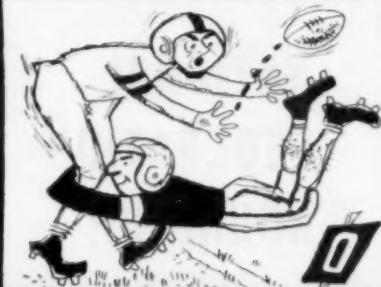
### Latest Guides.

• Published by the National Federation of State H. S. Athletic Assns., 7 South Dearborn St., Chicago 3, Ill.:  
1957 Official Football Rules, 35¢.  
1957-58 Basketball Rules, 35¢.  
1957 Six-Man Football and Soccer, 35¢.

• Published by the National Collegiate Athletic Bureau, Box 757, Grand Central Station, New York 17, N.Y.:  
1957 Official NCAA Football Guide, \$1.  
1957-58 Official NCAA Basketball Guide, \$1.  
1957 Official NCAA Soccer Guide, \$1.

• Published by the Division for Girls and Women's Sports, AAHPER, 1201 Sixteenth St., N.W., Washington 6, D.C.:  
1957-58 Basketball Guide, 75¢.  
1957-58 Basketball Rules Reprint, 25¢.

1957-59 Aquatics Guide, 75¢.  
1957-59 Winter Sports and Outing Activities Guide, 75¢.  
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1957-62 Recreational Games and Sports, 75¢.



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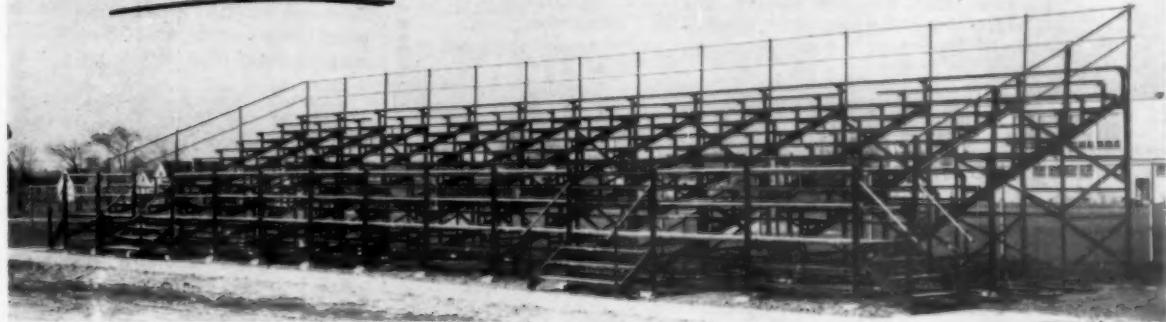
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**Question:** Is it legal to have the target behind the basket and the borders etched in the glass? **Answer:** Yes. Such markings may appear gray instead of pure white from certain angles. Most groups don't find this objectionable. If more pronounced white is desired, white paint over or behind the etching may be used.

**TRACK AND FIELD:** The 1958 edition of the Rules Book is being published about December 1. It will include records of all 1957 state meets, all rules revisions, the honor roll of best performers for 1957, an up-to-date list of national interscholastic records, and a section devoted to junior college performances.

Most of the rules revisions are of a technical nature but a few are of interest to all track followers. Unless announced otherwise in advance, three places will be counted in a dual meet and four in either a triangular or quadrangular meet. To avoid possible interlocking of hurdles when lanes are 42 inches wide, the top bar may now be 41 inches wide, instead of the previous minimum of 42 inches. Either vertical or diagonal stripes may be used.

For the shot put or discuss throw, a concrete surface with a roughness of 1/64 inch is recommended (but is not mandatory). Experimentation

with a high school discus with a slightly thinner rim for easier grip and better control is authorized. The distance it can be thrown is not different from the currently used discus.

**SWIMMING:** The 1958 rules revisions follow:

1. The butterfly stroke and the breaststroke are surface strokes with one arm-pull and one kick being permitted at the start and on each turn.

2. The 100-yard breaststroke and 100-yard butterfly stroke are standard events for all interscholastic meets.

3. The 400-yard freestyle is now listed as the standard No. 1 event for interscholastic championship meets. It's assumed that this event won't be included in a meet in which preliminaries and finals must be held on the same day. In a dual meet, the event won't be included unless announced in advance by the meet manager.

4. Procedures are outlined for combining lane judging and timing in determining winners to further reduce the possibility of a placing competitor being "lost."

**WRESTLING:** High school wrestling is one of the fastest growing sports. In 1955, about 1,970 schools sponsored the sport. This year approximately 3,000 schools include it as an interscholastic or intramural activity.

This phenomenal development may be partly due to television, but the cause goes deeper. The sport is adapted to boys of all weights and sizes, is a good muscle-builder and conditioner for all sports, is comparatively safe, and can be sponsored without great expense. That spectator interest can be developed is proved by the fact that in a few areas, wrestling outdraws basketball.

Several state-association sponsored meets are being expanded to accommodate the increased interest. In Wisconsin, four sectional meets were held two years ago and the number was doubled last year. This year, district meets will be necessary to qualify for the eight sectionals. District qualifying meets will also be inaugurated in Illinois this year.

In each event, four district qualifiers will advance to each sectional meet and two sectional qualifiers will advance to the state final. Several other states are making similar expansions.

**BASEBALL:** The high school program continues to thrive. Approximate (Continued on page 54)



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By LOU CARNESECCA  
Archbishop Molloy H. S., Jamaica, N. Y.

# Charting the Defensive Areas

**T**HIS all-inclusive Defensive Area Chart with its individual territorial breakdowns was drawn up mainly with the idea of aiding the young coach to teach defense. Here at a glance you can see how and where the many facets of defense are effected. When posted on the bulletin board where all the players may constantly refer to it, the chart represents an excellent visual supplement to the actual teaching on the floor.

The chart is divided into six main areas, each showing a particular defensive maneuver such as: when to play the ball tight or loose; when to play in front or in back of the pivot man; when to slide or switch; how and where to play shooters (such as the one-hand set shot and the two-hand set shot); and, finally, when to slough toward the ball.

The techniques to be employed in the various areas are as follows:

**AREA I:** We contest every pass; that is, we try to beat the offensive man to the ball, preventing him from getting it. Once he does secure possession, he's in very good scoring position. The man with the ball is played real tight, and we look to intercept a pass any time we can.

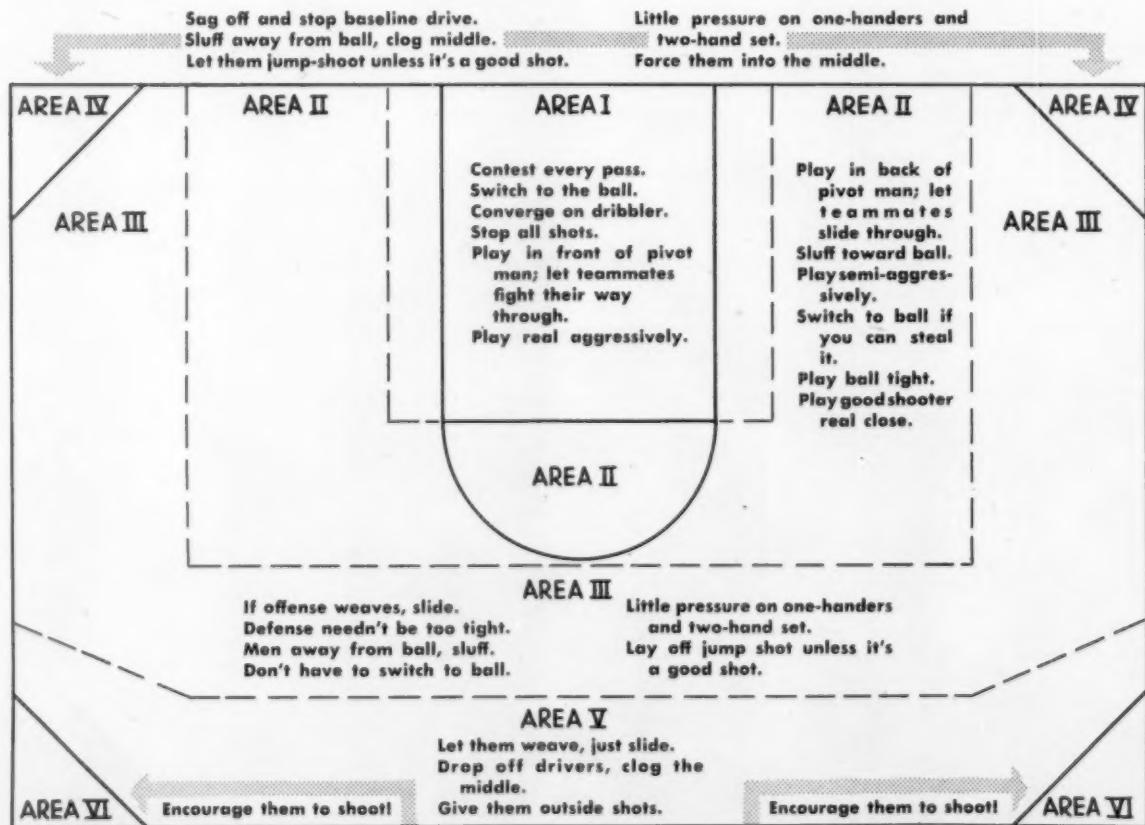
Another important feature of this area is that we play in front of the pivot man with our hands up to protect against a loop pass. In the event a dribbler gets by his defense man, we converge to stop his drive. Defense is played real aggressive and we try to stop all shots.

**AREA II:** Again we try to steal the ball whenever we can. We play the man without the ball a little loose while always sloughing toward the ball.

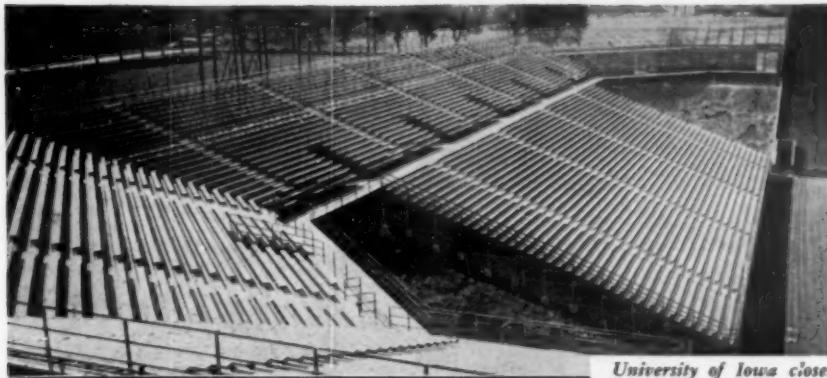
As for the pivot man, we play behind him, since he's a little too far out to be of real danger as a shooter. We stay about a foot and half in back of him. This allows our teammates to slide through and at the same time gives us enough room to switch and pick up a driver cutting off the pivot. If a switch to the ball is necessary, we try to be ready for it; and if our opponent has a real good shot, we play him real tight.

**AREA III:** We allow the offense to weave and we slide through without switching. We usually let them take set shots with a little pressure. However, if they're good shots, we'll go out and play them tight with our teammates sloughing. As the offense isn't in close, we don't try to switch to the ball. Again we sag or slough toward the middle.

(Concluded on page 52)



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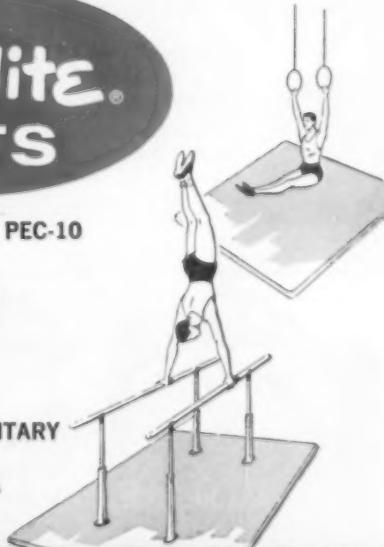
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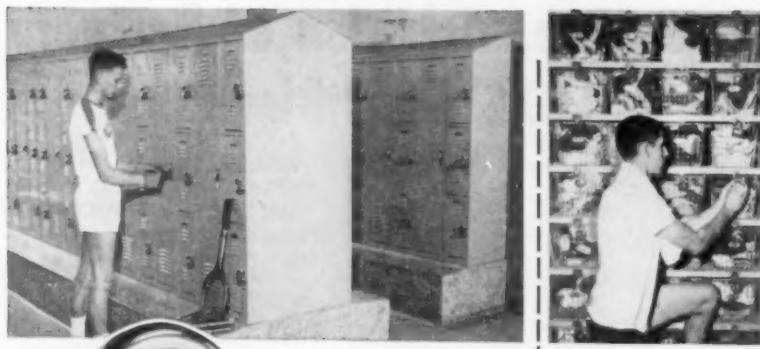


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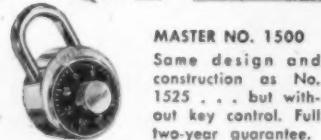
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AREA VI: Same as AREA V.

## Effects of Warm-Up in Swimming & Basketball

(Continued from page 24)

participating in a formal warm-up preceding the testing than they swam without any warm-up.

Four of the endurance swimmers swam the same number of laps after participating in a formal warm-up preceding testing as they swam with no preceding warm-up.

Each individual's total number of laps swum for three trials preceded by an informal warm-up and three trials with no preceding warm-up was analyzed for individual variances.

14 of the 26 endurance swimmers swam from 1 to 4 laps more after participating in an informal warm-up prior to testing than they swam with no preceding warm-up.

Seven of the 26 endurance swimmers swam from 1 to 2 laps less after participating in an informal warm-up preceding the testing than they swam without any warm-up.

Five of the endurance swimmers swam the same number of laps after participating in a formal warm-up preceding testing as they swam with no preceding warm-up.

## PROCEDURES IN BASKETBALL

The subjects in this phase of the experiment were 20 freshman basketball players who were attending The Pennsylvania State University during the 1956-57 academic year. The players ranged in age from 18 to 23. The players had completed 62 days of basketball practice before the testing in the experiment began.

The subjects were required to shoot 20 foul shots per day for eight consecutive practice days. This was done to establish a plateau of consistency for each subject in the number of shots made from day to day.

After the approximated plateau had been established for each player (without warm-up and preceded by a warm-up), the testing began. Each testing day the subjects were tested under conditions of warm-up or no warm-up. The order of testing for

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warm-up and no warm-up was completed on alternating days until each subject was tested three times with warm-up and three times without warm-up.

**Testing without warm-up:** Each player shot 20 foul shots immediately upon entering the basketball court. No warm-up of any type was permitted. The tester retrieved the ball for the shooter after each shot.

**Testing with warm-up:** Prior to shooting his foul shots, each player warmed up in the following manner:

1. General floor shooting for ten minutes.

2. Passing for three minutes.

3. Shooting of ten foul shots.

Immediately after each individual had completed his warm-up, he took his 20 foul-shot test. The procedures were the same as for testing without warm-up.

#### FINDINGS IN BASKETBALL

A critical ratio of 9.07 was obtained (Table 3) between the performance scores without preceding warm-up and performance scores after formal warm-up, in foul shots made by 20 basketball players. This *t*-ratio was significant beyond the 1% level of confidence and indicated that formal warm-up was important for accuracy in foul shooting in basketball.

Each individual's total number of foul shots made for three trials preceded by a formal warm-up and three trials with no preceding warm-up was checked for individual variance. All of the 20 subjects made from 2 to 14 baskets more after participating in a formal warm-up preceding the testing than they made with no warm-up prior to testing.

#### Conclusions:

1. Formal warm-up in speed swimming, endurance swimming, and basketball foul shooting improved performance significantly.

2. Informal warm-up appeared to improve both speed and endurance swimming in the majority of subjects tested. However, the group differences between informal warm-up and no warm-up were not statistically significant.

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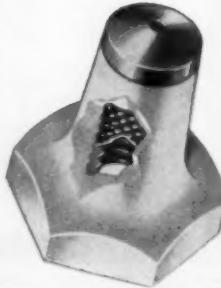
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(Continued from page 49)

mately 10,000 high schools, featuring about 300,000 players, played more than 60,000 games last season. Over the past 13 years, baseball has shown a 100% increase in the number of states sponsoring tournaments and a 300% increase in the number of high schools participants.

In 15 states—Alabama, Arkansas, Georgia, Idaho, Indiana, Kentucky, Minnesota, Mississippi, Missouri, Nevada, North Carolina, North Dakota, Tennessee, Washington, and West Virginia—there was a further increase in number of participating schools. The maximum increase was in Alabama with a 32% increase. Connecticut doubled the number of teams in their series of tournaments. 21 states expanded their activities in connection with baseball meetings and clinics. All states continued activities which they have been developing for the past several years.

A primary factor in this expansion has been the adoption by state high school associations of a baseball program which receives about the same type of attention as that which has been given to basketball and football. The program includes a series of baseball meetings and clinics, a training program for approximately 25,000 umpires, and a baseball publications program which involves the use of several hundred thousand rules and case booklets which are used as the basis for meetings, examinations, and sports administration programs.

**CHEERLEADING:** A school contest without some organized cheering would be in a class with a merry-go-round without a calliope or a salad without the dressing. The extent to which cheering contributes to the known advantage of playing on the home field or court may be debatable, but any experienced administrator knows that the psychological effect on spectators is great. At its best, cheerleading is one of the most effective means of maintaining good crowd conduct. At its worst, it is a rabble provoker of mass hysteria.

School administrators, recognizing the importance of this activity, have, through the state high school association, sponsored a program for training leaders. During October and early November, Michigan held four cheerleading clinics. The instructor was Newt Loken, gymnastic and cheerleading coach at University of Michigan. Minnesota has a well-established series of clinics

which have been conducted by L. R. Herkimer of Dallas, Texas. Ohio inaugurated a state-wide clinic last year and found difficulty in finding a place large enough to accommodate the participants. Kansas, Iowa, Illinois, North Dakota, Kentucky, Tennessee and other states have a series of clinics.

PRE-SEASON FOOTBALL practice regulations create problems which include overemphasis; taking boys from summer jobs; extra compensation for coaches; taking coaches away from summer positions; and additional cost for lights, care of equipment, and the early opening of the school building.

According to good authority, pre-season practice can be overdone. Two practices a day, morning and afternoon, will not condition players. After the third day, vitality is reduced, mental alertness is lost, and the injury rate is markedly increased. The two-a-day practice schedule doesn't permit sufficient time for recovery from injury. The practice was started to attempt to crowd into two weeks' time four or five weeks of preparation.

VERMONT Football Official's Association, with the approval of the Vermont Headmasters' Association, assigns officials to all interscholastic games in the state. All games are officiated by four-man crews, except that five men are used if that many are available on the given date.

WASHINGTON State Association Board of Control is recommending adoption of a by-law which would prohibit a baseball pitcher who has pitched four or more innings from pitching again until at least 48 hours later.

## 1-3-1 Zone Attack

(Continued from page 36)

No. 2 passes to 3 who passes down to 5 on the baseline. This usually gets the defense to mass on the strong side. No. 4 drops off the high post, while 5 moves the ball back to 3 and 3 back to 2.

This time 1 doesn't move into the high post. 2 passes over to 1 as 4 doubles back to the side of the ball. This usually gives us a 2-on-1 situation.

If the defensive man stays low, then 1 has a set shot in close. If the defensive man moves out to cover the wing, then 1 passes into 4 who has a shot near the basket on the baseline.



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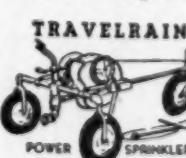
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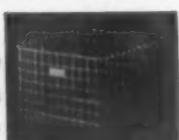
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## Screening Continuity Pattern

(Continued from page 11)

Finally, 2, the last cutter, may be open for a shot if the ball was not passed to 5. In case 5 doesn't receive the ball, he runs on through and becomes a rebounder, as indicated in **Diag. 13**. Guard 1 in the corner often will have an opportunity to fake and drive by his man.



Diag. 13

When the ball is passed to 2 out in front of 1, he should look first for his own scoring opportunity. If he's covered, he moves with a quick-dribble to the weak side where 4 will be breaking around the stationary screen set by 3. Many times 4 has a good 6-foot jump shot, as indicated in **Diag. 13**.

This ends the option play continuity. If no shot is taken, the players balance up and start another phase of the offense.

### Outside Play:

The "outside" play is based upon the screen and roll executed by the guard and forward, followed by pivot play in case the screen and roll doesn't go. This play can be initiated in two ways.

First, the guard may pass the ball in to the forward and cut by close on the outside for a hand-back (Diag. 14). It should be noted that



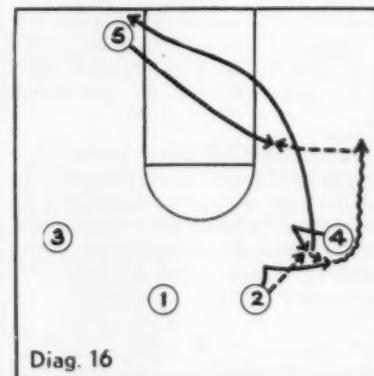
Diag. 14

the forward must take a break step toward the middle of the court, starting with the inside foot, before breaking at a 45° angle to meet the pass from the guard.

The forward, 4, after taking the pass from 2 and giving him a hand-back, rolls toward the basket and tries to free himself for the roll-away pass from 2. The center, 5, always takes a position outside the lane opposite the ball as "outside" is initiated.



Diag. 15



Diag. 16

The second way this play may be initiated (Diag. 15) is for 2 to dribble toward 4, who comes up to meet 2's defensive man with a back screen. 2 continues with his dribble drive down the sideline and 4 rolls toward the basket. It's possible that 2 may be able to drive all the way for the layup, or he may stop for a desirable 12-15 foot jump shot.

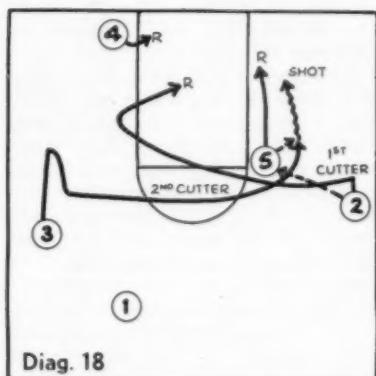
The weak-side forward, 3, and the weak-side guard, 1, are busy over on the weak side of the floor, jockeying their defensive men to keep their attention.

If the scoring opportunity for the guard-forward roll-away doesn't develop and the guard, 2, breaks his dribble, 4 runs on through and sets

up as a rebounder on the side of the lane opposite the ball (Diag. 16). Center 5 now breaks out to receive the pass from 2.



Diag. 17



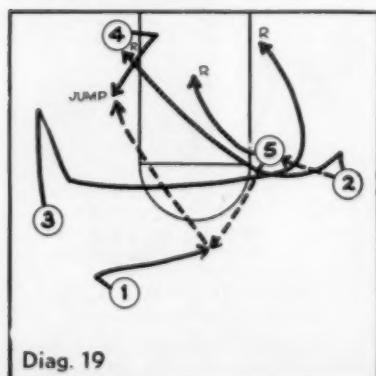
Diag. 18

The center may immediately wheel and attempt to score (Diag. 17), or he may feed the cutters, 2 and 3, who split the post (Diag. 18).

In case the center doesn't feed the cutters or attempt to score himself, he passes the ball back out to the outlet guard, 1, who immediately looks for 4 on the weak-side break-out play, Diag. 19.

This ends the continuity of "outside" and the players must balance up again and go into another phase of the pattern.

**"Outside" Option** (When the



Diag. 19

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pivot man is covered and the pass cannot be safely made to him:

Whenever the roll-away between the forward and the guard doesn't create a scoring opportunity, and guard 2 stops his drive, the pivot man (5) breaks out for the pass from 2, as shown in **Diag. 16**. In case 5 is covered and 2 cannot safely pass the ball into him, 2 immediately goes into the option play.

If 2 doesn't get the ball, he takes his position on the lane as a rebounder (**Diag. 23**). Guard 1 finally unwinds and may receive the ball from 4. He may have a scoring opportunity or looks quickly to the weak-side break-out man, 2. In case nothing develops on the option, the players quickly balance up and go into another phase of the offense.

### BASIC REQUIREMENTS

Following are the ideal requisites we look for in each position:

The guards must be good ball-handlers, playmakers, alert, and know the offense inside and out. It's preferable for both guards to be tall, but some of the best I've had have been rather small. One guard must assume the role of quarterback, but the other guard must also assume leadership responsibility to the extent that he'll initiate an offensive thrust.

The forwards should be rugged rebounders with good height. They should be able to shoot well from 18-20 feet out, drive, and jump shoot. I prefer the left forward to be right-handed and the other left-handed, if there's a choice in the matter, since they're usually driving diagonally across the lane. The forwards must also be able to handle the ball and maneuver.

The center should be a rugged re-



Diag. 20

Guard 1, alert to the situation, breaks from the weak side and receives the pass from 2. The latter follows his pass, as indicated in **Diag. 20**, in order to pull his defensive man out of the middle area. 1 passes to 3, who may fake and drive for a scoring opportunity. However, if this doesn't develop, he passes to 4 breaking to the corner, and cuts for the basket for a return pass (**Diag. 21**). Should 3 not be open, he cuts on through and sets up as a rebounder across the lane opposite the ball.

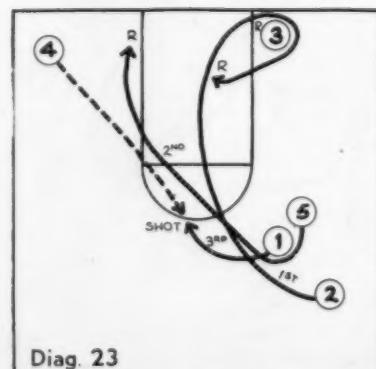


Diag. 21

In the meantime, when 5 sees the option play begin, he immediately moves to set a screen on 2's defensive man. Likewise, 1 has set a screen for 2, who breaks off the double screen as shown in **Diag. 22**. If he doesn't get the pass from corner man 4, he cuts on through as indicated to give 5 room to operate, as he cuts next for a jump shot opportunity.



Diag. 22



Diag. 23

bounder and have the skill and versatility for pivot play, handling the ball, and maneuvering. I should have mentioned, in talking about the guard qualifications, that both 1 and 2 should be able to hit the 20-25 foot outside set shot, drive for the 15-20 foot jump shot, or go for the lay-up. The guards must be fluid and versatile and have the temperament to set up and "run" the pattern.

The advantages of this type of continuity may be enumerated as follows:

1. It continually challenges players individually and as a team to development of maximum ability.

2. It's an effective method of penetrating the switching or straight man-to-man defense.

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9. Pattern play tends to encourage balanced scoring, since screening maneuvers give every player a chance to work for the good shot with strong rebounding.

10. It helps develop a consistency in team performance over the course of a season.



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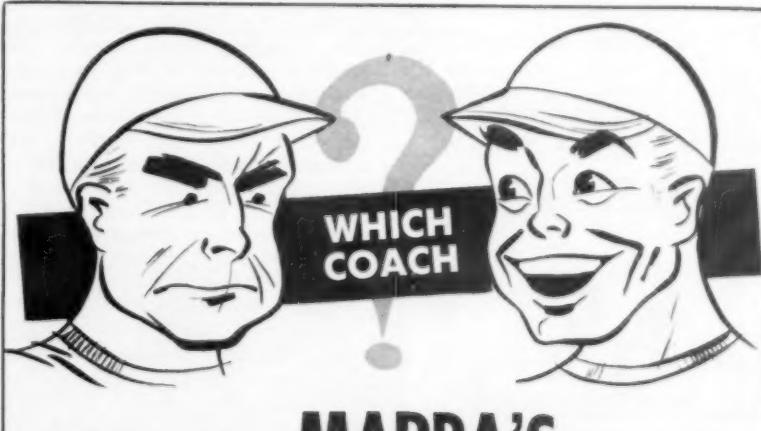
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## Developing a Shooting Touch

(Continued from page 9)

gers and the top edges of the palms. The rest of the palm is kept off the ball. The grip is firm but not tight. A tight grip tends to lock the wrists and promote forearm tension.

For the set shots, the arms should be kept fairly close to the body, and the eyes trained over the front rim of the basket. Notice the accent on the word *over*. The textbooks expound the idea of focusing the eyes on the front rim, but I believe in shooting for an *area* rather than a specific spot.

I also believe in slightly *over-exaggerating* the arch of the shot. Nearly all the hoop masters preach a middle course—not too high, not too low. I think that by elevating the arch a bit, you not only enhance the comfort and fluidity of the shot but capitalize more fully on the basket opening. Wouldn't you say that an object falling from a higher plane can more easily drop through an opening than an object coming in from an angle?

I didn't have any arch problem at college, since I did all my playing in the pivot. When I reached the pros, however, I was shunted into a corner and had to develop a good set. After considerable experimentation with arches, I discovered that the somewhat-more-than-normal arched shot paid the best dividends, and I've been using it ever since.

If you find your kids shooting too hard, get them to concentrate consciously on the front rim and count every rim hit as a successful shot. The player who can constantly hit the front rim is a good shooter.

Many kids are trained to keep their eyes on the rim even after the ball leaves their hands. I believe this is a mistake. Once the ball leaves his hands, a shooter can't do anything more about the shot. But he can do something about the rebound.

Since he's in the best position to determine the carom, he should follow the flight of the ball. That will usually tell him which way the ball will bounce and what sort of correction will be needed on subsequent shots.

Rhythm is another vital aspect of good, consistent shooting. A player should practice, practice, and practice the correct form, taking his stance immediately and shooting the shot the same way with the same rhythm each time. This de-

velops an excellent automatic pattern.

On the subject of practice, I might mention that the players—particularly youngsters—should concentrate only on the shots they actually use. They shouldn't fool around with fancy things they'll never use. And they should never throw 'em up carelessly. That's the best way to pick up bad habits.

The boy should take his shots from a reasonable range and shoot 'em with perfect form exactly as he would in the game. Remember, as you practice, so will you play.

Only through extensive practice, concentration on form, and experience can a player develop "touch"—the ability to gauge distance and deliver the ball on target with a nice eye-hand coordination.

Having covered the general principles involved in shooting, let's take a brief look at the actual techniques involved in the various shots:

**TWO-HAND CHEST:** Keep elbows in but a little away from body with forearms at about 45° angle to ground. Feet are about 10 inches apart on line with one another or with one foot slightly advanced. Lean forward, not backward, placing weight over toes. Hold ball in triple-threat position (from which you can shoot, pass or drive with minimum effort) at upper chest or chin level.

Flex knees and fold wrists slightly backward. Then extend arms upward and toward basket, releasing ball with smooth movement of arms and slight wrist snap—using thumb pressure to impart required spin. Spring upward and slightly forward from balls of feet, and let arms follow-through overhead. If shot

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has been released correctly, palms should be facing basket with thumbs on inside.

**TWO-HAND OVERHEAD:** Ball is poised in front of the face or over head, and is gripped a little lower higher, and is gripped a little lower—thumbs underneath with fingers pointing upward. Trunk is fairly erect, knees flexed slightly. Ball is released overhead with wrist snap and inward rotation of hands—thumb pressure applying spin. Knees and arms are extended, fingers and palms facing basket.

**ONE-HAND SET:** Advance right foot 6 to 10 inches, keeping knees slightly flexed. Rest ball on fingers of left hand with right hand behind ball, both thumbs pointing to left.

Extend ball in front of body at about chin or nose level. On delivery, bend knees slightly and cock wrist—bringing ball slightly backward. Push ball toward basket off fingertips, extending arm fully.

**HOOK:** With back turned to opponent, take step to left and bring ball to that side with both hands—holding it away from body with all reach possible.

Keeping body between man and ball, look over left shoulder and shoot ball over head toward basket with a full sweep of right arm—keeping arm perfectly straight. Left shoulder should be pointing toward hoop at time of release, and follow-through should carry fingers over head toward left shoulder.

**JUMP:** After coming to a stop, flex knees and leap high into air. Bring ball up overhead with two hands—folding ball back so that shooting hand is behind and almost underneath ball and balance hand is at top or at side. Right arm is crooked at about a 45° angle.

At peak of jump, remove balance hand and release ball with extension of right forearm and strong wrist action. Arm straightens out as ball is released softly off fingertips. Trick is to suspend—delay—at top of shot.

**DRIVE-IN:** When driving into the basket at full speed after evading a man, you must relax mentally—you can't be tense—and you must hesitate somewhere along the line to soften the shot.

Your last step must be a real long one. Strain up and forward, bringing the ball up in both hands. At the last moment, remove the balance hand and lay the ball up softly underhand. This softens the shot.

When driving through several defensive men, don't take your eyes off the basket. Don't worry about getting hit. Concentrate on that basket, and let the bumps fall where they may.

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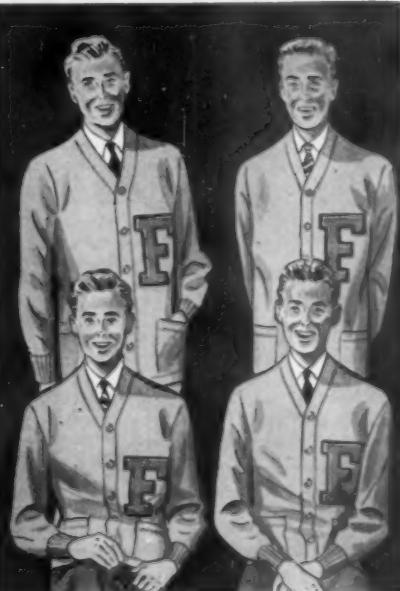
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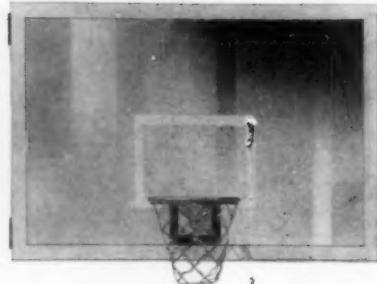


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Don't anticipate a foul. Many young players start twisting and turning to avoid a contact which never occurs. The result is they lose their concentration on the basket and miss the lay-up.

### GENERAL POINTERS

1. Shoot only when you have a good opening. Don't pop when off balance or closely guarded.

2. If you can't move the ball out to set for a shot, don't take it—you haven't enough room.

3. If you're the last man back, don't try to follow up a set shot. Stay back for safety.

4. After shooting from a deep corner position, move toward the middle of the court to avoid being trapped on a fast break.

5. Learn to shoot from a high position with the ball at upper chest or chin level. This gives you a better line at the hoop and makes it tougher for the guard to deflect.

6. Work on your left hand as much as possible. Ambidexterity is essential for players who do a lot of driving underneath.

7. When practicing, it's a good idea to start from close range and then, as you acquire the feel, move back for longer shots.

8. Practice your weaknesses, not strengths.

### "Here Below"

(Continued from page 5)

Carthy gravely warning them not to expect additional funds and to concentrate on suggestions based on existing organizations and facilities and not requiring federal or local funds.

The Conference produced neither a precise definition of fitness nor a clearcut blueprint to achieve youth fitness. But it did come up with a dozen proposals—the most significant one of which was a daily physical education period for all students throughout their entire school experience.

This probably broke every AAU record for cloud vaulting. How could you possibly achieve the desideratum of a physical ed period a day for everyone without investing billions of dollars for more facilities, more equipment, and more teaching personnel?

Can you imagine asking a small school whose limited facilities preclude more than a weekly period of physical ed, to expand its program to five periods a week without putting in extra facilities or extra teachers? Schools such as these—



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and they run into the thousands—couldn't even think of it without recourse to considerable local or federal funds.

LET'S not kid ourselves. The physical fitness "problem" cannot be solved with patriotic slogans, inspirational importuning, advisory committees, or cut-rate measures. If the problem is as serious as Washington believes, there's only one way to attack it—with money and with experts.

If Washington wants a functional program, it must treat fitness as an essential national concern. It must put the job into the hands of a regular agency, composed of the finest physical fitness minds in the land, working full-time on the job of planning and supervising a national program.

Sure it will take millions of dollars. But that's the only way to wind up with a functional program, not a document that will gather dust in the Library of Congress.

#### KUDO FROM MILWAUKEE

OUR editorial on Warren Giese in the September issue chalked up six big points in the home of the Brave and the brew. It seems that the fine young South Carolina coach is one of the dears that made Milwaukee famous.

"At Rufus King High School," athletic director John C. Foti informs us, "Warren was not only a star athlete but a leader in class activities. He was president of his graduating class and a topnotch football player who learned quickly and applied what he learned effectively. All of us were mighty proud last year when Warren returned to Rufus King and delivered an excellent message to the students. South Carolina has put its football fortunes into mighty fine hands."

That's what we've been hearing from all sides.

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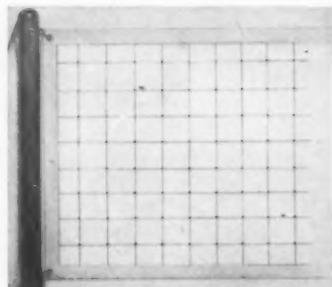
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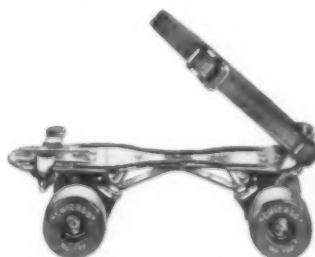
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